Wm Darlington M.D.
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Chester County Medical Society

Presented to

The Chester County Medical Society,

By Wm Darlington.

# Notes

taken from the Lectures of

# Benjamin Rush, M.D.

on the

# Theory & Practice of Physic.

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By William Darlington, Student of Medicine,
Member of the American Linnean, &
Philadelphia Medical Societies.

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Taken
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COLLEGE OF PHYSICIANS
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"Let no man enter the

Temple of Medicine

Who does not know the pulse."

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# Notes from Rush's Lectures.

November 7th. Lecture 1st. Doctor Rush's Introductory Lecture was upon the Pains and Pleasures of a Medical Life. The pains he divided under three heads, viz. Vexation, Distress, and Solicitude. Physicians are often vexed by the ignorance, superstition, obstinacy, and neglect of patients. They are distressed by sympathizing with the anguish and affliction of those under their care: And affected with solicitude when Friends, heads of Families, or Favorites are entrusted to their skill for recovery. They have no time they can call their own.— The pleasures belonging to the profession are those arising from acts of benevolence — the pleasures resulting from a cultivated mind — an acquaintance with the sciences — and above all, that exquisite and noble gratification arising from a consciousness of having preserved the life of a valuable member of society, or averting the stroke of death from a beloved Friend.—

Voir pour Fruits Légumes.

Novem. 10th. Lecture 2nd. The Science of Medicine may be compared to a Tripod, whose feet are Experiment, Observation, and Reasoning, or Theory. It cannot stand upon any one, or even two of these; but stands firmly upon all three. A prescription never was made without theorizing. A collection of medical facts unconnected by Theory, is no more a science, than a collection of Bricks in a brickyard is a House.— Doctor Rush was educated first a Boerhaavian; then he became a Cullenian,- but by reasoning he found both their systems wrong. Dr. R. in his course of Lectures will deliver one thousand facts for one theory; but one theory where Dr. Brown does two; and where Cullen does twenty.- There are three modes of acquiring knowledge in Medicine; viz. by reading Lectures, and observation of the symptoms, changes, and progress of diseases. Lectures are better than reading, and observation better than both. A young man would as soon learn to swim by reading a treatise on the art of swimming, as to practise medicine successfully by only reading and attending Lectures. See your patients every day- at the same time of the day- send the medicine soon after the prescription- put it

it up neatly; and always subscribe the patient's name to the directions and medicine. A physician ought to be an apothecary, and well versed in the composition and preparation of medicines. Do not be led away from common, to the study and attention of uncommon cases. Sit up with sick people in the night, at critical periods: instruction is often obtained by it. Let no private nor public business, no pleasures nor engagements, prevent your regular attendance on your patients.

Novem. 11th. Lecture 3rd. Forms to be observed on visiting patients - particularly private patients. Let the patient describe his disease before you ask any questions; he will describe the most distressing symptoms first, - though not always the most dangerous ones. Learn the manner of attack; for the more sudden the attack, the more dangerous the disease. When fevers, and even apoplexy are preceded by premonitory signs, they are less dangerous than when they come on without. Attend to family remedies; for there are not only hereditary diseases, but also remedies which have a kind of hereditary virtue. Inquire whether the

the present disease be not vicarious with some other, as the Hæmorrhoids, &c. Dr. Clarke says that in diseases of the Liver there is pain about the rectum on going to stool. Learn the state of the bowels; appetite, excretions, skin, temperature, mind, &c. Inspect the countenance; it often indicates diseases, as mania, stone, &c. Examine the eye, tongue, voice, &c. Beware of being deceived by the appearance of the tongue; for it is sometimes colored by port wine & claret, by Blackberry jelly, liquorice, and tobacco; tho' seldom by this last, for few people use tobacco while they are sick. All these circumstances should be attended to; but it is the pulse that ought to claim our chief regard. The Arteries are endowed with muscular irritability, which is acted on by the Blood, chiefly. When the vessels are engorged, as in peripneumonia notha, the pulse is soft in consequence of this engorgement; but a bleeding or two will relieve the vessels, and they will become tense to the feel: The pulse begins, says Dr. R. if the expression be allowable, to play the tune of inflammation!

It

It is of as much importance to know when not to rely on the pulse, as when to be govern:ed by it; for in cases of suffocated excitement, it does not sympathize with the system.—

Novem. 14th. Secture 4th. The pulse is to the body what the dial-plate, and hand is to a Clock. Some Physicians prefer judging of the state of the body by the tongue, excretions, &c. Dr. Rush's sys:tem rejects none of these; but he hopes his pupils will hereafter be remarked for their knowledge of, and predilection for, the pulse, as a guide to the knowledge of the state of the System. The pulse is affected by age, state of society, sex, climate, season of the year, time of day, position of the body, position of the arm, food and drinks, pas:sions of the mind, conversation, and exercise. Sometimes the pulse is preternaturally slow, or fast, even in health; as in a Lady of this city, it was 40, and in a gentleman, never less than 100, strokes in a minute. In disease, also, the pulse varies in quickness and frequency, owing to morbid irritability in the bloodvessels. There is a delusive vigor in the pulse of drunk:ards, which Dr. Rush calls the soap-bubble pulse.—

Novem. 15th. Lecture 5th. An old man in pleurisy will have a vigorous pulse after he has been bled sufficiently - We should attend to this fact; otherwise we might bleed him to death, if governed altogether by the state of the pulse. The pulse has been known to descend as low as 7 strokes in a minute. Nervous fevers are divided into slow chronic nervous fever, and low nervous fever: The former is attended with a typhoid, the latter with a typhus pulse. This distinction is of importance, for the remedies are different. We now proceed to the first part of our Course; having given the necessary preliminaries. The first thing that strikes us in viewing an animal is its Life. [See Dr. Rush's Lectures on Animal Life.] Perfect life consists in motion, sensation, and thought. Dr. R. is inclined to believe in Girtanner's theory of the principle of animation, [viz. oxygen;] but the theory is of no consequence; the fact is what he attends to. That life is a "forced state," is not originally the doctrine of Brown. Dr. Rush learnt it of Dr. Cullen, and taught it in this

University before the name of Brown was heard of: It is true Dr. Cullen afterwards renounced this doc=trine; but it is equally true, says Dr. R. that I never did. The Stahlians held that the soul, or mind, had its head-quarters in the brain, and extended its influence to the extremeties, produc=ing animal Life. This is making the mind independent, - a kind of little god, - which Dr. R. conceives to be impious. The animal body is not an automaton, or self-moving machine; but is acted on by external and internal sti=muli, whereby reaction, or Life, is produced. Animal life is sustained by those stimuli. —

NOVEM. 16th. Lecture 6th. Animal Life continued - It is supported in the fœtal state by the warmth of the mother, the stimulus of the blood, motion in utero, &c. In infancy it is supported by motion, crying, laughing, novelty, &c. All these combined, support life almost in excess from 20 years to 35 or 40 - During this period the passions blow a perpetual storm. Old People are sustained

by many of these stimuli; they are also habit-
-ually costive, which state assists in supporting
animal life. What is called a natural state of
the bowels, i.e. a stool or two every day, would
diminish animal life in them. In Idiots, the
defect of mental stimulus is supplied by con-
-stant motion, or talk, or inordinate appetite
for venery, or aliment. In drowned persons,
&c. the excitability remains for minutes and
even hours, if it have not been exhausted by
violent exertions; and may be converted into
excitement, i.e. Life, by the application of gentle
stimuli. Dr. R. thinks the brain continues
to act, in Asphyxia; And in Thomas Say's
case of alleged trance, or vision, he thinks the
ears, likewise, retained their capacity of trans-
-mitting sounds to the mind; and that in
this way he became acquainted with those
circumstances which appear so marvellous
in his narration.

Novem. 17th. Lecture 7th. A violin has no mu-
=sic in it until the bow touches it; and in like
manner, the animal body has no life in it
until stimuli take effect on it. Natural
death is owing to the excitability being ex-
=pended, or worn out. Force is not only ne-
=cessary to support animal life, but to sus-
=tain families, governments, and armies;-
nothing is independent but the Deity.- The
next thing which strikes us in viewing the
animal is its heat; which is nearly the
same in all climates. It is not probably
owing to fermentation, nor to the friction
of the blood against the vessels. In order to
generate heat by friction, it is necessary
that one body should be at rest [?]- nor does
heat arise from the friction of the particles
of blood on one another; for mercury, or water,
when shaken, do not generate heat. The
most probable theory, is that which attri-
=butes it to a decomposition of Oxygene gas;

to which theory Dr. Black opened the way.
Some objections have been started to this theory;
as for instance, partial heats; if the lungs
were really the fire-place whence heat is
derived, it is alleged that they would be
much hotter than any other part; where-
-as they are but one degree hotter; &c.-- Is
air absorbed by the Lymphatics, and mixed
with the blood? Mr. Abernethy says air
may be thus absorbed, by compressing it.
May not the body have the power of con-
-verting sensible heat into latent heat, when
the temperature of the air is above 96°? &
when the temperature is below that, may
it not have the power of converting latent
into sensible heat? Spontaneous decomposition
of animal bodies- several facts are related
by credible authors. It occurs most frequently
in drunkards- in women more than men.
most in old women. The surrounding bodies,
however, inflammable, are not burnt. Some-

=times the extremeties only are burnt. A [21]
black, greasy residuum is left. Air is ne=
=cessary to life in all animals whatever.
Animal heat is greater in sleep, when
of long duration; but in a short sleep
is not so great.

Novem. 18th. Lecture 8th. Motions in
Animals, are divided into involuntary, volun=
=tary, and mixed. Dr. Berkely thought the
first motion of the heart in the infant was
voluntary; but that it afterwards became in=
=voluntary: But Dr. R. objects to this opinion,
because it is merely hypothetical; and be=
=cause the heart has acted in a child
destitute of brain; and he thinks there can
be no mind without brain,- and certainly
no will without mind. Colonel Townshend
could suspend the action of his heart, by
merely suspending his respiration.- The

Lungs are not very sensible; as we may perceive by the little inconvenience with which Millers, and others, respire among dust. Causes of Respiration - it is immediately excited chiefly by the stimulus of uneasiness in the chest; which differs from pain. The sensation is uneasy, rather than painful, probably from the lungs not being very sensible. Uses of Respiration - Oxygenation of the blood, voice and speech, sucking in children, which they could not do without breathing, &c. - Laughing, crying, sneezing, coughing, &c. Sneezing is often a premonitory symptom of catarrh; and likewise occurs often at the crisis of some fevers. Yawning - A person is not completely awake until he has yawned and stretched. Laughing is best in the evening; hence the Romans had their Attic evenings, - so called from Attica, the institutor of those pleasurable Societies.

Voice - it is generally supposed that the voice depends partly on the principles of a stringed, and partly of a wind instrument; but Dr. R. thinks it depends intirely on those of a wind instrument, for a variety of reasons. Birds have a double glottis. One argument used by Dr. R. for the above opinion, is, that the human voice, and even speech, may be imitated by echo, which has no circumstance analogous to stringed instruments about it. The glottis is capable of an astonishing number of motions in a given time - 950 ? in a minute - Voice is partly imitative. A boy who had lived chiefly among hogs, could not be distinguished from them by the voice. The people of different countries may be distinguished by the voice. Voice alone does not give man a preeminence over other animals; but it is the numerous and various divisions

of voice which constitutes speech. There [27]
can be no speech without voluntary respira=
=tion. Crying and laughing assist children in
acquiring speech; and this may be the reason
why they are peculiar to the human spe=
=cies. The crossest child Dr. R. ever knew,
learnt to speak distinctly before it was
10 months old. When children find them=
=selves understood, though they should speak
ever so incorrectly, they seldom take pains
to correct themselves. A child of Dr. R's.
acquaintance, from being indulged in
such absurd errors, used to call a carriage
a Jaw, and sugar billy, &c.. They should
be compelled to speak plain and dis=
=tinctly; and this may be done by refusing
to understand them until they express
themselves correctly.

Novem. 19th. Lecture 9th. Dumb persons are
such in consequence of deafness. Translation

of the senses - as from the glans penis to [291]
the pubes. Kau Boerhaave had the sense of
hearing translated to all parts of his body,
when he became deaf. - How many dis-
-tinct motions must be performed by the
organs of speech in a person who speaks
Greek, Latin, and all the modern languages!
Remember this, says Dr. R. for the fact will
be brought forward again, to explain the oper-
-ations of the mind. - Circulation of the Blood -
The right ventricle beats several strokes af-
-ter the left has ceased, in dying animals.
All the arteries have nerves, and blood-
-vessels, or vasa vasorum. They do possess
stimulability, notwithstanding what Haller
and Dr. Wm Hunter has said. ———

Novem. 20th. Lecture 10th. The veins are more
branching, and run more superficially
than the arteries. They have valves. &c.
Powers which move the blood - the Heart
is the source - the blood is moved in conse-

=quence of its irritability - stimulus of dis=
=tension - influx from the brain, let it
be explained how it may; for we see that
the passions, wounds in the cardiac nerves,
&c. do affect the action of the heart. The
Arteries and large veins possess an irritabi=
=lity, or contractility, of themselves - for they
sometimes have excessive action when
the heart is in its natural state of action.
The other systems of the body all act
for the benefit of the Arteries. - The Arteries
of a turtle continued to pulsate for some
time after the heart was cut out. They
are the centinels of the system - are always
on the watch, night and day. - Powers
which move the blood in the veins, are
muscular compression, irritability, &c. Use
of the Circulation - to support the action
of the brain, furnish heat to the body,
humidity, liquid for secretion, nutrition,
gives tension to the nerves, supplies ner=

-vous matter, &c.. Harvey committed suicide by means of opium, in consequence of his persecution, after his discovery of the circulation of the blood. The Lymphatics possess irritability.. Nervous System. By this system Dr. R. understands, or includes in it, the brain, nerves, muscles, and mind; because they are all intimately connected. The brain is not yet understood; but "dies docent"! Four out of the five senses originate in, i.e. the nerves come immediately from the brain. The arteries in the brain are more tortuous than elsewhere. One fifth of the blood of the body is sent to the brain. The nerves are the media of sensation and motion. Gang= -lions serve to arrest the influence of the will over the vital actions, according to Dr. Johnson. Monro supposed them to be little brains, designed to furnish fresh supplies of nervous fluid.. Intercommunion of sensation. as when the liver is diseased without pain there; but attended with Colic, &c. Sensation was supposed by Sir Isaac Newton to be com=

:municated by a subtle Ether. Dr. R. does not [35]
adopt nor reject any theory; but thinks it
is performed by the intermediation of matter
of some kind. All muscles become broader
and shorter during action. Vis insita, - or the
power of motion in muscles independently
of connection with the brain and nerves -
Muscles do posses a vis insita; as we see
in animals which have no brain nor
nerves. Muscular power, i.e. the strength
of the fibres, is much greater in living
than in dead muscles. ———

Novem. 22nd. Lecture 11th. In the human body,
sensation is confined exclusively to the brain;
as is proved by ligatures cutting off all com:
:munication, &c. Convulsions destroy sensation.
a woman was delivered of a child, in con:
:vulsions without pain. Delirium destroys
pain, as likewise does drunkenness. - a
woman was delivered when drunk, with:
:out pain. Laws of sensation. - Julius Cæsar
dictated for six amanuenses at once; but

his ideas were nevertheless in succession; he [37]
could not think on all the subjects at once.
Influence of Habit on sensation - All sensations
are more or less acute according to their continu-
-ance. Certain sensations at first disagreeable
become agreeable by habit; as tobacco, odours, &c.
This law is applicable to morals as well as
medicine. Repetition gives accuracy, and
strength, to muscular motions. While we are
under active sympathy, i.e. are assisting the
distressed, there is a diminution of passive sym-
-pathy, or feeling for them. Repetition regulates
the degree of muscular contraction; and will
induce actions without sensation. This dis-
-position of the system to habits, from repetition,
is deep-seated in the body. Read Wright on
nervous diseases, and sympathy.

Novem: 23rd. Lecture 12th. The Senses - The whole
surface of the body is capable of sensation. The
brain is like a great city, and the five senses
are the avenues leading to it. Touch is

a widely extended sense. Wounds, where 39 /
the skin is thick, as the soles of the feet,
or palms of the hands, oftener produce te-
-tanus, than in more tender parts. The
different colours of nations and people lie
in the rete mucosum. Sensation is much
governed by the state of the arteries - is al-
-ways in proportion to the tension of the
arteries of the part, and of their number,
as in the lips, breasts of females, and geni-
-tals of both sexes. The fingers possess most
capacity for discovering the properties of
bodies; the lips the next, - but in order to
discern nicely, the brain must be wholly
free from compression, or even much im-
-pression. The sense of touch is most acute
when all the other senses are free from
impression; hence the propriety of silence &
darkness while feeling the pulse. If we
were devoid of the sense of touch, we
could not distinguish the rosy cheek of a
beautiful girl from a glowing coal of fire!!

Horses startle at stumps, stones, &c. from [41]
the want of this sense. Helvetius conceives
this sense to be the best and most general
mark, or criterion, by which man may
be distinguished from other animals.
Novem. 24th. Lecture 13th. Taste. the palate
does distinguish some tastes; but the tip and edges
of the tongue are the principal seats of taste.
The sense of touch is very accurate in the tongue,
for eggs may be tested as to their soundness
by it; a sound egg is always warm to the tongue,
at the small end. An Animal has taste
in proportion to the length and size of the
papillæ on the tongue. Taste has become very
accurate in some instances; as that of the
wine merchant, who could distinguish the
wine of every parish of Madeira, by the taste!
The eyes aid taste; as in distinguishing dif=
=ferent kinds of meat. Smelling. The organ
of smell is much extended through the eth=
=moid bone, &c. but Dr. R. thinks the sinuses, as

the frontal, &c. do not aid smelling, other = (43)
=wise that sense would be acute in propor=
=tion to the size of those sinuses. Besides, the
air does not appear to enter them, in the
act of smelling. Short inspirations are most
favorable for smelling. Strong odors draw tears
from the eyes. This sense is intimately con=
=nected with other parts of the system; as the
bowels, stomach, lungs, brain, &c. an import=
=ant fact. A grain of musk has scented a room
for twenty years. The urine of a skunk has
scented a whole township. This is also an
important fact; it shows how the effluvia
of a mill pond, or sewer, may affect a whole
city, and produce a malignant fever. A
constant inspiration is of great importance;
it renders the nose a centinel to the whole
system. We are told of a boy, in England, who
could distinguish his enemies, or friends, by
the smell, and afterwards his wife, by the
scent of her track! Smell is more acute in

country than city- in those who live on 
vegetable than in those who live on animal food.. The most nauseous smells and tastes are agreeable in a diluted state; as Cats' u=rine, and Cockroaches, in wine, Asafoetida on beef steak, &c.- Selling- To do justice to this sense, would require a whole course of lectures. It differs from the forementioned by being committed to two organs. No animal has but one, or odd eyes. The fore side of the mem=brane forming the pupil is called Iris, the back side is called uvea. The lens is seated behind, the Iris. The aqueous humor is renewed in 24 hours, after couching. Light- fine as the matter of light is, it has not escaped analysis. White and black are not colors- one reflects all the rays, and the other none. Red is most refrangible, and violet the least so, of all the rays. Near=sighted persons are called Myopes, distant sighted, Presbyopes. The pupil is contracted in viewing near objects, and vice versa. There have been cases where the pupil contracted on going into the dark, & è contra.

All objects are painted in the eye in an in=
=verted position. Why does the sight with both
eyes give but one view of the object? Because
under two or more impressions of equal force
there can be but one sensation. When
black is held before the eyes some time, it
gives them a languishing appearance, for
want of stimulus. Children do not see for a
month or six weeks after birth, owing to the
thickness of the cornea, and deficiency of the
aqueous humor. Defect of vision increases
the other senses. To preserve the eyes, we should
let them rest easily in their sockets, without
throwing the muscles on the stretch: do not
read books with very white paper - do not
read in the open air where light is ex=
=cessive, nor where it is deficient - change
the size of the print, in the books you read.
Vision has been improved by blackening the eye=
=lids, or combing black hair over them: The
black absorbs the redundant light. - Hear=
=ing - Sounds are divided into sound particularly,

and noise. Music affords an example of what [491]
is here meant by sound; and the explosion
of Gunpowder, of noise. All solid bodies that
strike other solid bodies emit sound. Sounds
are acute in proportion to the number of vi-
-brations in a given time. The greatest number
of vibrations in a second is 7520. When chords
are in unison, it is termed consonance, by
Musicians. The walls of Jericho fell by the
blowing of ram's horns, because they were
in unison with the vibrations of the horns.
The membrana tympani has been ruptured
by filing a piece of iron of less magnitude
than itself; the vibrations being so acute. When
the angle of reflection strikes the object e-
-mitting the sound, he hears it repeated; con-
-stituting Echo. Albinus could move his ears.
The os petrosum is 100 times harder than
any other bone.

Novem. 26th. Lecture 15th. The Ear is said
to be compound in its operation; the fenestra
ovalis conveying distinct sounds, - the fenestra

rotunda conveying indistinct sounds. The [31]
meatus auditorius internus does not convey
sounds; for a watch held in the mouth will
not be heard to tick, provided it do not touch
the teeth. The Cochlea, semicircular canals, &
vestibulum, are to the other parts of the ear,
what the retina is to the other coats of the
eye. Dyonisius had his prison, or castle, con-
-structed on the principle of the cochlea of
the ear; so that the least whisper was con-
-ducted to his ear. We acquire our know-
-ledge of the direction of sounds only by ex-
-perience. Hearing is not an independent
sense; it is indebted to the nose, (which af-
-fists it by sneezing and clearing the eustachi-
-an tube,) to the eye, &c. A deaf man could
distinguish the sound of a drum, by its giving
him a pain in his bowels. Some can hear only
when there is a noise existing at the same time;
as a Lady could only hear other sounds when a
drum was beating before her;- & a Gentleman in
North Carolina could only hear when there was
vocal or instrumental music in the room.

This noise acts by giving a tone to the ear, necessary to hearing. [53]

Novem. 28th. Lecture 16th. We now proceed to treat of the Mind - Be not startled at the proposition, says Dr. R. for the operations of the mind are as truly mechanical as touch, taste, or any other function of the body. The faculties of the mind have been happily term:ed internal senses. Opinions of Metaphysici:ans are various. Dr. R. says the resurrection of the body, only, can ensure the immortality of the soul. A belief in a Saviour will enforce a belief in every miracle. The Moral Faculty is divided into moral faculty, properly so called, sense of Deity, and Conscience. Dr. R. thinks a distinct motion might be seen in the denuded brain upon every operation of the mind, by the help of a microscope. Memory consists of two parts, or faculties, - that of retaining, and that of recalling, ideas. The first is a retentive, the latter a ready, memory. Three years is the date from which memory gen:erally first recollects; there are a few exceptions.

Sometimes there is a singular partial loss of memory - Linnaus forgot his Wife's maiden name! Imagination has been called the representative faculty; it comprehends realities and fictions. There can be no invention without imagination. We say of Fancy that it is rich and luxuriant - of imagination that it is beautiful and sublime. Fancy considers hobgobling, fairies, &c. The Will is seated in the understanding, and also in the passions and appetites. Emotions differ from passions, in not being attended with desire or aversion. Faculties only are innate. It would be as absurd to say the moral faculty could distinguish good or evil, without impressions, as that eyes could see without light. Man is necessarily a religious animal; he cannot exist happily without religion of some kind. Religion, it is true, is often perverted; so is the understanding, and in some instances, the senses. Conscience is regula regulata, non regulans. It is the judge of law, and not a legislator. - Truth has but one front; consequently all the senses will make the same report of it to the mind.

Novem. 29th. Lecture 17th. The Sense of Deity [57]
remains in a dormant, or perverted state, in a great majority of mankind. Life is a voyage, in which the moral faculty is the compass, conscience is the rudder, &c. None of the faculties act separately in a healthy state; they are all dependent on each other. The healthy mind is like a well-organized gov=ernment- the Will is the Executive. The mind may be transferred to the medulla oblongata; and even to some of the larger nerves.- Operations of the mind- These are Perception, Association, Judgment, and Reason. By Perception is meant that operation of the mind by which objects are identified. An Idea is the effect of certain motions excited in the brain, and conveyed to the mind, inducing perception. Thought is the effect of motion in the brain: this motion is produced by stimulus. Ideas are raw materials- thoughts are the manufactured products. Association- this is often involuntary from habit. Error and vice are tolerated only by Association. Ideas are often recalled by assuming the same pos=ture in which they were first observed. Time and place assist association- so likewise does pain, as child-bearing in women, &c. Pain is also

revived by association, without the cause being [59]
apparent. The word Earthquake produced delirium
in a gentleman who had narrowly escaped the
Earthquake at Lisbon. Certain degrees of heat and
cold renew ideas associated with those sensa=
=tions. Hume has called man "A bundle of Habits."
In cases of melancholy, the ties of consanguinity,
or rather their associations, should be attended
to; for they are often to be broken, or dissolved,
in order to effect a cure. The Judgment yields
as necessarily to argument as the Will does to
motive; or as the eyes or ears do to light & sound.
There may be perception and association without
Reason. Is not Genius a sudden perception
of truth and error? Attention is nothing but
chronic perception. Wit pleases by its being
true and novel. Neither Judgment nor Reason,
(with reverence would I speak it, says Dr. R.) can
be ascribed to the Deity; for they imply labor and
progress. There is no self-determining power in
the Will: It would be torpid to the end of time
without motive, - as life would never exist with=
=out stimuli. Free agency and necessity are both
true, however contradictory. Brutes differ from

man in an inability to acquire a know- [61]
-ledge of the use of tools, languages, &c. and in having no sense of Deity.

Novem. 30th. Lecture 18th. Pleasures of the Senses- of Touch- There are hermaphrodite sensations belonging to this class; being part- -ly pleasurable and partly painful, as tick- -ling, sleighing, &c.- Pleasures of Taste- plea- -sure is here increased by concentrating the other senses in the tongue, as keeping silence, &c. Variety is essential to the pleasures of eating; for we are soon cloyed with delicious food- but insipid food is always agreeable. Pleasures of Smelling- There is a base in smelling, as in the magnolia, and lilac,- a Tenor, as in the rose and pink,- and a Treble, as in the wallflower, jonquil, &c. Pleasures of Sight- Colors, like sounds, are certainly related to each other; as in the rain- -bow. A young Lady fainted on seeing a young man who was uncommonly handsome! Extravagant emotions of pleasure, like those of grief, cause a kind of stupor, as in the Lady on mount blanc. Height, distance, &c. cause

pleasure; as also does contrast- a green leaf 
afforded great pleasure to a man after be-
-ing two years confined in a dungeon. A
child has great pleasure in sucking; all the
senses are here gratified.

December 1st. Lecture 19th. Since the loss
of primeval innocence, pain appears to
be the natural state of man. The first im-
-pressions upon the new born babe, Dr. R.
thinks, are all painful, except that of its
mothers milk. They afterwards become plea-
-surable by repetition. Pleasures of Hearing-
The pleasing sounds are as follow- 1st. the
dove-toned, 2nd. bell-toned, 3rd. lisping, 4th. vel-
-vet-toned, and 5th. the infantile tone, or
voice. The unequal distribution of the
pleasures of Life arise, not from the Deity,
but from the folly and wickedness of
man. Pleasure is a mere quality. Weak
impressions become acute, and strong ones
weak, by repetition. Women bear pain bet-
-ter than men because their nerves are soon-
-er reduced to a paralytic state, in conse-
-quence of the weakness of their bodies.

Opium cures pain only because it is a greater stimulus than the pain; for when two impressions of unequal force are made, but one of them can be felt- this is one law of sensation. Truth is so congenial to the human mind that it cannot be perceived without pleasure. Eureka! was the exclamation of Archimedes, on making a celebrated discovery. Rittenhouse fainted on observing the transit of Venus take place agreeably to his calculation. A lady was cured of mania, by the pleasure of seeing, suckling, and rearing her child; she relapsed upon its being taken from her. an important fact. Haller says there is an afflux of blood to the part, in pleasurable sensations: this is true in generation, &c. but pleasure is sometimes attended with the reverse of this; as in rest after labor, and parturition: Burke says this is the proximate cause of pleasure. Dr. R's. theory embraces both these facts. ———

Decem. 2nd. Lecture 20th. The mental faculties act powerfully on the body; as is proved by their inducing fatigue, by their effects on the bowels, nervous system, &c. The proximate cause of the pleasures of the mind consists in moderate distension. Grief becomes agreeable by habit. When garlic and tobacco are habitually used, they are preferred to sugar. Pain is a part of our title to pleasure. When we cease to feel pain, then farewell pleasure. — Sleep — suppose the sleeping point to be 20, the highest degree of elevation 30, and the lowest degree 10 — by expending excitability we wear down the system to the sleeping point — by abstracting stimulus, we lower the system without expending excitability. The former is produced by exercise, heat after cold, exercise of mind, &c. The latter by darkness and cessation of muscular motion, cold, grief, &c. — Tea, and all medicines, especially Opium, will have opposite effects on persons

whose systems are in opposite states; in one [69]
they will induce sleep, in the other wake=
=fulness - This fact is of great application
in medicine. Perhaps inclination to stool
is diminished in sleep by the diminution
of irritability in the sphincter ani. The
system is weaker in sleep, than waking;
and also in the morning than at other
times of day, - hence old people have more
cough in the morning, &c. Dreams depend
upon irregular motion, or partial excitement
of the brain, during sleep. We dream of doing
immoral acts, from a collapse of that part
of the brain which is the seat of the moral
faculty. These dreams distress some people,
but are intirely harmless. Dormant ideas are some=
=times revived in sleep; as in the lady who dreamt
where her husband had laid a receipt - she thought
he appeared to her, after his death, and told her
where it was. This was effected by association
which could not be accomplished in the waking
state. Dr. R. thinks with Mr. Locke, that the

soul sleeps with the body when the latter is in perfect health; and that dreams are the consequences of morbid action in the brain. Haller made verses in his sleep. Dr. Blacklock dined, and talked with his family, and sang a song, in his sleep. Mrs Robinson composed that elegant little poem called "the maniac", in her sleep. A young man in france, mentioned in the memoirs of the french academy, composed an oration, in his sleep. —

Decem. 3rd. Lecture 21st. The actions of somnambulists never fatigue them. This shews excessive excitement. When we dream of things not lately thought of, it is not supernatural; but owing to a revival of long-forgotten associations. Terrifying dreams often precede hydrocephalus, in children. The knowledge of the mind is very important in the treatment of diseases. Aliment. Some aliments do not show their disagreement with the constitution for many years. Habit, which extends its influence to every part of the animal economy, has a peculiar power

over the use of aliment. The romans ate their /73/
fullest meals in the evening - it the best time -
as rest after a full meal promotes digestion.
Bitters before meals are bad; they either increase
the appetite beyond the exigencies of the sys=
=tem, or they diminish it. Dr. R. not only ob=
=jects to bitters and drinks before dinner, but
also to drinking early in the time of eating.
Solubility in the stomach is the property of
animal food most favorable to nutrition.
The flesh of wild animals is most soluble:
fat meat is more soluble than lean. Meat
keeps best in an ice-house; or, which is as well,
keep it about a foot below the surface
of the water, in a cold spring. It will keep
in this way a week; but must be cooked
soon after taking it out. Fish are said to
putrefy soonest during the full moon, when exposed, in the
west-Indies; (but may not its light N direct
flies to them, to deposit their eggs?)
Decem. 5th. Lecture 22nd. Aliments, continued -
Boiling animal food is not very proper; as it
often dissipates the more soluble parts. Baked

meat is apt to contract the taste of other meats when baked with them. Crabs and lobsters afford but little nourishment. We may always know when fish are boiled sufficiently by their swimming on the water. They sink a second time, when boiled too much. The practice of observing Lent ought not to have been abolished - it was conducive to health at that season of the year. Order of nutrition in animal food - 1. Quadrupeds - 2. Birds - 3. Fishes - 4. Amphibia - and 5. Insects. Eggs ought to be cooked in water just below the boiling point - in this way they are more equably cooked. Neither animal, nor most vegetable, food, is agreeable without condiment, especially fishes. Butter is good with fish, but is too much used with other aliment. Methods of preserving meat - It is preserved in Sugar, flour, sand, &c. They act by excluding air or moisture; but the general preservative is the Muriate of Soda. A small portion of salt hastens putrefaction; but in larger quantity preserves it a long time. Salt meat checked a general

dysentery in the American army, during the [77]
late war; or rather prevented its future occurrence.
Man is omnivorous. The Tartar has sucked
the blood of the goat. The Patagonians eat
Horseflesh. Some have even preferred putrid
flesh to sound. A pound of fat contains
more nourishment than a pound of lean
meat. A child requires more aliment than
an adult. From 4 to 6 pounds of Aliment,
including liquids, is enough for most men,
for twenty four hours. It is peculiar to man=
=kind, to take food warm. Tea and coffee are
good where wakefulness is required - they should
be made a little stronger than usual for
this purpose. Coffee is also good in preserving
us against cold. The least nourishing wines
are claret, burgundy, &c. - Sherry and Madeira
are more stimulating. The gout is hardly
known in the island of Madeira, where
so much wine is drank. Distilled Spirits
are bad in every form. Dr. R. thinks ap=
=petite may be caused by vitiated bile sometimes;
but not a natural appetite. Boerhaave

says appetite is caused by the action of the [791]
coats of the stomach on themselves; the action
of the bile and gastric juice, &c. But it depends
upon a certain state of excitement in the
stomach. Thirst is seated in the fauces and
throat - is sometimes owing to acrimony in
the part - also to a state of excitement, called
by Dr. R. the thirsty point. Thirst may be
suspended by washing the fauces, &c. ——

Decem. 6th. Lecture 23rd. Digestion - The stom-
-ach is found in all animals, except the
Tenia and Hydatid. Grapes and cherries have
been swallowed and discharged whole.
Heat and solution are necessary to digestion.
It requires three days, in the polypus, to digest
that, in cold weather, which it digests in
twelve hours, in warm weather. The gastric
juice contains an acid; supposed to be the
phosphoric acid. The mind, and indeed the
whole system, have a great influence on
the digestive process. Dr. R. has lately known
a case of Diarrhœa cured by letting the pati-
-ent eat every thing that came in his way;

probably by diverting the morbid action from the [81]
lower bowels to the stomach. In weakly people, eat-
-ing often induces a chilliness, ending in a slight
fever and sweat. The disposition to sleep, rest, &c,
after eating, is not necessarily connected with it: it
is owing to excess, &c. Rest favors digestion. Two pointers
were fed on the same food - one ran two hours,
and the other rested - at the end of that time, di-
-gestion was scarcely begun in the former, while
it was nearly completed in the latter. In con-
-sequence of Dr. John R. Young's arguments and ex-
-periments, Dr. R. now rejects fermentation from
the list of agents in digestion. He also believes
the lacteals to be secretory vessels, instead of mere
absorbents; for people are supported by nourish-
-ment in the form of Clysters, which must un-
-dergo some change in the lacteals. Lamb's
blood could not be distinguished from milk
when tasted with the eyes shut. Blood co-
-agulates sooner if the vein be long tied up
before it is opened: sooner also in wooden
and earthen vessels than in metallic ones.
When dissolved blood is changed by bloodletting,

or stimulus, the lymph is said be resuscitated. /83/
and Dr. H. calls the dissolved condition of the
blood a state of Asphyxia of that fluid.
There are cases in which bleeding is proper
after the red globules are diminished in quan=
=tity. The red globules may possibly be the
vehicles of animal life, or the vital principle.
Decem. 7th. Lecture 24th. Lymphatics - Some
of the lymphatics do not pour their contents
into the thoracic duct. They are all endowed
with arteries and veins. The lymphatics pos=
=sess a power over both solid and fluid parts.
The disappearance of the thymus gland can
only be explained in this way. The lympha=
=tics are said to absorb water in bathing, &c.
but others deny it: they say the thirst is
relieved in this case by the water exciting
a new action. The action of the absorbents
is promoted by distension, pressure, friction,
vomiting, purging &c.. A person is heavier
after a purge than before. The lymphatics
preserve the fluidity and proper condition
of the blood. They are like swine in the

streets of a city, in removing the offal of [105]
the system.

Decem. 8th. Lecture 25th. Secretion. The more operose the secretion, the more unlike the original fluid is the product; as in the semen; and vice versa, as the urine. Old wine illustrates the former position, and small beer the latter. Synovial liquor is secreted chiefly during the night. The urine, according to some Chemists, is composed of eleven ingredients. In the case related by Dr. Senter, where urine was discharged from the stomach, Dr. R. thinks the stomach took on that peculiar action which produces urine; for the action of glands is sometimes transferred to glands of a different nature. The urine of children is more mild than that of old people; and contains less phosphate of lime, because it goes to form the bones, during growth.

Semen is the heaviest of all secreted fluids. [87]
A child, if its lips be sound, may suck a wo=
=man who has the venereal disease without
contracting that disease. The Bile is a sep=
=tic product, but proves antiseptic when
formed: so is nitre. Anger promotes the se=
=cretion of bile. A young man puked a gill
of bile, after an insult which he could not
resent. Fat is a corps de reserve in the sys=
=tem, to be called into action in cases of
sickness, abstinence, &c. The perspiration of a
Watchmakers does not corrupt the air so
soon as that of 2 Carpenters. The smell of
the Greenlanders' perspiration in a church
was insupportable by a traveller, because
they lived on rancid whale oil. Sweat is
owing to the relaxation of the extreme
ends of the arteries. A certain Player
never was sick in his long life, because he
always went to bed as soon as he found

himself indisposed; and thereby always throws [89]
off the plethora which occurs in the beginning
of fevers, and prevented the necessity of blood=
=letting and physic, by that precaution.

Decem. 9th. Lecture 26th. Nutrition - There are two
opinions on the mode of nutrition; one set
supposing it to be effected by the nerves, &
the other by the arteries. Boerhaave directed
his attention too particularly to the blood;
Cullen and Brown too much to the nerves.
If Dr. R. have done any service to medicine,
he thinks it has been by directing his atten=
=tion to the sanguiferous system. Peculi=
=arities of Females - Their bones have more
sulci, or furrows in them; made by the
arteries on the soft and yielding bones. A
physician would be deficient in anatomy
who could not tell the sex by viewing the
bones in a charnel house. There is a natu=
=ral and original difference between the minds
of the sexes. In consequence of the superior

Taste of females, they are more ready in ac=
=quiring imitative arts, as dancing &c. Many
of the disorders of society are owing to the in=
=version of that order in the mind which has
been stamped by the hand of nature. —
Catamenia - At the eruption of the men=
=ses, Girls eyes acquire brilliancy, their voice
become more musical, and themselves every
way more agreeable. The venereal appetite is
also increased at this period. Sometimes the
menses appear at an old age, after they
have long ceased; this, like the renewal of
the teeth, appears like an effort of the
system to renew the Antediluvian age.
Some women menstruate during all the
time of pregnancy. In this case, the blood
comes, not from the uterus, but from the
vagina. Cause of Menstruation - Brown
ascribes it to the stimulus of the venereal
appetite. This is as far from truth as it
is from delicacy. It has been referred to

a ferment in the uterus - also to a sinus [93] in the uterus where the blood is congested - and likewise to a plethora. That it is owing to a plethora Dr. R. thinks probable, from its appearing at the eyes, finger ends, &c. As in Hæmoptysis there is first a general, and then a partial, plethora, so in menstruation. The final cause is said to be to nourish the fœtus in utero; but this is not correct, for brutes do not menstruate; neither is the quantity of menstrual blood, retained during pregnancy, equal to the weight of the child. Dr. R. thinks the determination to, and flow of blood from, the uterus, is to increase its sensibility, and prepare it for conception. Women are more apt to conceive just before, and just after, the monthly evacuation than at other times. If it shall be found that the female monkey receives the embraces of the male at all times, Dr. R. will have no doubt that the use of the menses is to prepare the

system for the procreation of the species. [195]
Peculiarities of Males- at 14 years of age the voice changes; called the 14 years old cold! ——

Decem. 10th. Lecture 27th. There is no condition of system in which there is not venereal de=
=sire. Even in old age, we often see people do homage, by matrimony, to this universal stimulus. The turtle remains 3 or 4 days in connection with its female. Conception. The female was supposed by some physi=
=ologists to furnish a kind of semen to mix with the male's. The embryon is first awakened from its long sleep by the sti=
=mulus of the semen. Several circumstances influence the effect of coition; as the con=
=dition of the male semen- condition of the absorbents, if it be absorbed; or of the peri=
=staltic motion of the fallopian tubes, if it be conveyed in that way. Change of Climate has a great influence on conception. An old prostitute bore 3 or 4 children, on being trans=

:ported to Botany Bay. This influence extends to other animals, as the Sheep on the Islands near St. Kilda, &c. The Symptoms of Conception are owing to a new action induced by the new stimulus. Dr. R. believes the whole business of conception to be effected in the ovarium. It may be compared to a hotbed; and the uterus to a green-house, to which the embryo is transplanted to be nou=:rished: from this it is at length excluded into the open air. Bloodletting renders parturition easy by relaxing the system, &c. Opium and epilepsy suspend the pains of parturition; as likewise does drunkenness. Dr. Hutchinson was called to a woman in pleurisy, near her time; he had to bleed her to the amount of 90 ounces; this relieved her, and she was soon after de=:livered, almost without pain.- Health is that state of the system in which the Ex=:citement and Excitability are in an exact ratio with each other, and equally distribu=:ted throughout the body. This definition ad=:mits of latitude; for an effeminate citizen

may have as perfect health as a hardy [99]
countryman. No anchor can be cast in the
river of Life which will prevent us from
being carried down the stream. ——

Decem. 12th. Lecture 28th. Pathology—
We have hitherto considered the body, as Di-
-vines consider the mind whilst in paradise;
viz. in the Healthy state: We now consider
it as they do man since the fall,— in a
diseased state. It would seem that life
was the product of a constant strife— It
is owing to an equal combat between sti-
-muli and excitability. Diseases may be
considered as useful, in various points of
view. There are but few books on Pathology.
Boerhaave and Gaubius have written some-
-thing; but not profitable to students.— De-
-bility is the predisposing cause of all diseases.
Even contagious diseases do not act, until
they have induced debility. Dr. Brown con-
-siders debility as a disease; Dr. R. does not:
it is only the predisposing cause.

Moral evil exists in the mind. Physical e= =vil affects the body- both are owing to debility. Evils consist in irregular action, error loci, or solution of continuity. Small pox does not af= =fect brute animals. Miasma is injurious only in error loci, or in an over-dose. Poisons are all relative evils: They are only evil when in error loci. When we poison ourselves we encroach on the brutes. There is no evil in a barren soil; it is only an undue mix= =ture of clay and sand. Moral evil- Self-love is only that which connected up to the Deity and the human race, turned to ourselves. Anger is a misplaced virtue; so is malice. The relish for good is heightened by contrasting it with evil. The first thing to be done in treating a disordered mind, is to strengthen the Will; to re-erect this main pillar. The effects of this negative evil are all positive, and are innumerable. When debility is sud= =denly induced, excitability is always accu= =mulated. Excitement may be increased with= =out being morbid; as in running, dancing, &c.

Disease is always partial. In fever it is con- [103]
-fined to the bloodvessels: In mania, to the brain; In dysentery, to bowels, &c. There is no general disease. There appears to be a law of the system something like that of Elec-
-tricity; When excitement is below the health-
-y point, or debility exists in a part, it is as it were in a minus state, and other parts, like plus clouds, discharge their excitement upon the debilitated part; inducing irregular action. Disease always attacks the weakest part of the sys-
-tem. In cases of debility it is sometimes necessary to prescribe rest, or less stimulus than natural, in order to avoid the action of irritants upon the accumulated excitability. Brown says Excitement and Excitability are equally diffused through the sys-
-tem, in disease; but Dr. Rush makes this equable dis-
-tribution to be health, - and disease to consist in partial accumulations, or distributions. There are 4 links in Dr. R's. Chain of disease - 1. Predisposing debility, 2. Stimulus, or exciting cause, 3. Morbid excitement, or disease, and 4. Effusion, or derangement of organic structure, which he calls Disorder.

Decem. 13th. Lecture 29th. The causes of fever often combine; and sometimes only two act. In this case the remote becomes the exciting cause. There is a range of excitement of 10 degrees above and below the healthy point, without disease necessarily following. This is of great consequence to attend to. We may always know when we are predisposed to disease; and therefore we should always, at such times more particularly, avoid exciting causes. When the system is predisposed to disease the exciting cause takes effect. It is stimulus; or as Mr. Hunter calls it, an Irritant. Disease is always partial; and the art of curing consists in equalizing this partial excitement. Disease, or irregular action, discovers itself in the form of convulsions, pain, &c. A schirrous liver is a disorder. It may, however, occasion disease, by reaction. It may cause dropsy, by obstructing the lymphatics. The schirrus itself is the effect, or disorder, resulting from chronic inflammation. Dr. R. says there are no asthenic diseases: if the action

be not excessive, or preternatural, in force, it [107]
is in frequency; as in Typhus fever. There is always
morbid action. As there is latent and sensible
heat, so there is latent and sensible disease -
This is observable in cases of suffocated excitement.
Dr. Physick saw a boy with fractured skull, by a fall
from a horse, where the excitement was so suffocated
by the blow, that there was no action in the brain,
but by a small bleeding the vessels of the brain
began immediately to act. Sometimes morbid ex-
-citement passes on immediately to gangrene, or
disorganization, without the intervention of
inflammation. Morbid excitement often ends
differently in different parts. In the soft parts
it sometimes terminates in bone - often in pus:
on the skin in eruptions; &c. If bloodletting be
useful in inflammation, why not in Hydroce-
-phalus internus, which is an inflammation
of the brain? If salivation be good in inflamma-
-tion of the liver (as it is, previously to suppuration)
why not in other chronic cases of inflammation?
Diseases in their various forms may be considered
as an hundred rooms in a building, to which
former pathologists had an hundred keys, to open the doors:

If Dr. Rush should establish his doctrine, the Unity [109]
of Disease, he will furnish one key which will
open all the doors: so that we shall be exonerated
from the burthen and noise of ninety nine
keys! After disease is once formed, removing the
remote cause will not remove the disease: for
the removal of splinters which cause tetanus, &
worms which produce hydrocephalus internus,
will not remove those diseases. During the
predisposition, we feel the operation of the re=
=mote causes. This is the time to prevent the
impending disease, by removing the remote
cause; as in costiveness, predisposing debility
suffers it to act as a remote cause of dys=
=entery, so that disease may be prevented
by removing constipation. Pain has been so
great as to destroy life - to extinguish the ex=
=citability very soon. The final cause of pain
is to impel us to seek remedies. We should
be thankful for feeling pain; it warns us
of danger. If consumption came on with
pain, we should always cure the disease;
but by the time pain is felt, great disorder
has taken place in the lungs.

Decem. 14th. Lecture 30th. In cases of suf- [111]
-focated excitement, by gradually abstracting stimulus we induce all the other symptoms of disease, or morbid excitement of the vessels, such as inflammation, heat, &c. These occur in lower grades of morbid excitement; but in the former case morbid excitement transcends inflammatory action. Precisely the same morbid action takes place in the system, let the cause be what it may, gout, or fever, &c. The specific action of the parts, or vessels, is always the same, from whatever remote causes. There can be no reason why venesection should not be used in morbid action of the brain, in mania; stomach, in gout; kidneys, in dia-betes; bloodvessels, in dropsy; or lungs, in pul-monary Consumption, &c. as well as in inflam-mation of the pleura, in pleurisy. As a Ma-riner, who can conduct a vessel to the West-Indies by a correct knowledge of the princi-ples of Navigation, can with that knowledge also conduct a vessel to every port on the globe; so a Student of Medicine who can

cure one disease by the principles of Dr. R. [113]
may cure all the diseases of the human body
by applying these principles to them; making al-
-lowance for the seat, grade, and other circumstances,
of the disease. Remote & predisposing Causes of Disease -
Children are predisposed to disease by bad diet, and
bad conduct in nurses, and mothers. Dr. R. knew a
a child to die of convulsions, by sucking a nurse
just after she had drunken a pint of rum. Air
acts by its sensible qualities - heat, moisture, density,
and rarity. Heat is an universal stimulus. Indirect
debility induced by heat, discovers itself in the arterial
system by languor and accumulated excitability; pre-
-paring it for the action of exciting causes, to produce
disease: next in the brain, calling Insolation. Heat
acts on the nervous system, increasing excitability;
hence greater frequency of Hysteria in warm climates.
When above the healthy excitement it dulls the
sense of touch; produces indisposition to voluntary
motion; occasions sweating - in a higher degree it in-
-duces dryness of the skin. A dryness of the skin ge-
-nerally ushers in Hepatitis, in the East-Indies.
Heat acts on the blood, inducing a tendency to pu-
-trefaction - occasions a redundancy of the bile;
but the bile is more frequently disordered by mix-

=ture with marsh miasmata; hence bilious remitt= [115]
=ents are more frequent in marshy countries.
When heat is so great as to induce indirect debi=
=lity, it often causes sudden death; especially in
old people. Fair complexioned people do not tan
because their white skins reflect the light; where=
=as brownish skins absorb a portion of light, and
are colored in consequence. Heat after cold in=
=duces inflammatory diseases. Moderate wea=
=ther after great heat occasions the sensation of
cold, and often brings on disease. After hot, dry
summers, the autumns are generally attended
with bilious fevers. A Spaniard of Madrid, shuts
himself up during the heat of the day, and by
dressing accordingly avoids the diseases of hot
weather; while an Englishman in that country
takes no care of himself, and suffers accordingly.
Uniformly wet seasons, in England, are healthy.
During wet seasons in moist countries, there
is a peevish disposition sometimes prevails,
which is called the Sea-fret- as in the ma=
=ritime counties of England.

Decem. 15th. Lecture 31st. Cold is only an ab=
=straction of heat; and acts only by making way

for the operation of the usual stimuli. This is 1117
inferred from its debilitating effects, &c. Cool air
only relieves by removing the pressure of indirect
debility, or excessive stimulus. Are bilious remit=
=tents relieved by emetics? it is by discharging
or abstracting the stimulus of the bile, which
was in excess. The pulse, in incipient palsy,
and apoplexy, is often very weak and small,
owing to excessive stimulus: here a bleeding
will remove this excessive stimulus, and the
pulse will rise and become stronger & fuller.
The system will receive tone in consequence.
Cold dulls sensation in the nervous system; caus=
=es a dull pain in the head, and sleep, and even
death. This pain has been supposed to be owing to
the stimulus of cold - it is no such thing. It
is owing to the reaction of the system. The finger
is burnt by putting it on frozen mercury, as
much as on a red hot coal. Cold increases the
appetite; especially for animal food: hence the
Germans keep warm stables for their cattle,
in order to moderate their appetites. Cold, to
a certain degree, causes redness; in this case it has
rendered the vessels paralytic, or torpid; and the

blood is propelled into the relaxed vessels. There [119]
is more evil resulting from cold, than any thing
which operates on the living body; as may be
observed not only among mankind, but on brutes,
insects, &c. Sudden cold in warm weather causes
many diseases; as a cold night in august. Direct
debility is induced, and any irritating cause,
as motion, and even thinking, may excite dis-
-ease. Much has been ascribed, in this case, to
obstructed perspiration. No doubt it has its effect;
but debility is first induced. Perhaps the reaction
in the extreme, or perspiratory, vessels, may be
the exciting cause. After a long application of
cold, as in a Greenland winter, the excitability
is so accumulated that the stimulus of the
vernal sun induces gangrenous, or typhus
fevers, immediately. Accommodation of dress
to the weather is especially necessary in the
spring and autumn. Nine out of ten of the
fall fevers attack in the night - they are
cowards, and seize us in our sleep. Moist-
-ure increases the sedative effects of cold.
The Russians cannot bear the moist air of
Britain, so well as the cold dry air of their

own country. The air of Holland is so moist that [121] winter clothes are necessary in midsummer. Diseases from cold are more frequent in windy, than in calm, cold weather: The wind carries off the heat more rapidly. The measles, scarlatina, &c. sometimes swell the bills of mortality, in winter, far beyond what they are in other seasons; but this is independent of season. The winters are generally the most healthy season. The latter end of july is often attended with fatal diseases among children. June is the most healthy month, in Philadelphia. The diseases of one season are often carried, or continued from one season into another. At present, the autumnal? fevers partake more of a bilious nature — the tongues not so white as they are in the spring; and the pleurisies are of a more chronic nature than in the spring. This is of importance to know, and ought to influence the treatment of diseases. December diseases are carried to may; and often require depleting remedies more particularly: And Autumnal diseases continue their types into december; discovering remittent forms, &c. In this case we are to take the fact into consideration; depletion must be governed by it. Tonics may be given more freely and more early.

Decem. 16th. Lecture 32nd. Air highly rarified, as on the tops of mountains, has a considerable effect on the body; inducing muscular debility, palpitation of the heart, nausea, sleepiness, & even pain from the rays of the sun shining on the skin. Old sores are often rendered worse by the air becoming rarified. Rarified air affects invalids most. In ascending the alps, asses & mules are affected like the men; but the symptoms go off in both, by rest. Miasmata. Three circumstances are necessary to their production, viz. Heat, moisture, and the presence of dead animal or vegetable substances. A degree of heat about 80° of Fahrenheit's scale is necessary. A very dry soil, or ground intirely covered with water, will not furnish miasmata: Heat and moisture must be combined. A heavy rain may cause fever from miasmata, by breaking the pellicle in marshes and ponds, and suffering exhalation to take place. This fact should be attended to. It does not militate against the doctrine just advanced. Dysentery is found on hills, not in consequence of miasmata,

but of the cold and sudden changes of the /125/
situation, determining the perspirable matter to
the bowels; there causing morbid action, or dys=
=entery. Miasmata have the greatest effect in
the morning and evening; least at noon
and midnight. Other substances besides miasma
cause fever; as Cabbage, potatoes, flax, onions,
cotton, coffee, paper money, and books. Some
spices, putrefying in the holds of ships, have
caused fever; also green wood; as in the case
of Dr. Cadwallader's family, where fever occurred
from stowing away green wood in a house
every year; and which ceased on leaving off
the practice. The green timber of a ship has
caused fever. it may be avoided by hanging
the hammock in the middle of the ship.
Stagnant air in the hold of a ship, or in a
cellar, has caused fever. There ought to be chim=
=neys in cellars. The air from hogstyes, and
duckponds, has caused fever. It has also been
produced by stirring stagnant pools, and by
putrefying animal substances, &c. Order of
Operation of Miasmata — 1st. On the stomach?
2. On the bowels, producing intestinal state
of fever. 3. on the liver. The romans, when

they went to buy land, examined the livers [127]
of the domestic animals of the place. Habit con-
-tributes much to lessen the effects of miasmata -
it even renders their stimulus necessary to life.
The soldiers who had been at Ticonderoga had no
remittent fever until the second year after their
return, and then not one escaped; though no per-
-son who resided in the village had it. Dr. R. does
not suppose, in this case, that it was owing
to the miasmata remaining in the system;
but to the debility remaining after the oper-
-ation of the remote cause. Animal miasma
is generated in crowds, jails, &c. Low diet favors the
production of it. It induces typhus fever, &c. - A
foreigner going to St. Kilda will give all the inhab-
-itants a Catarrh. Strangers crowded together will
produce catarrh, and even typhus fever; hence
it is more frequent in time of war. The French
Emigrants here caused Influenza. Idleness pro-
-duces fever in crowds. An idle army is always
unhealthy. Scanty fare often causes disease in
armies. Can miasma formed in a body in-
-fect the same body? Dr. R. says yes: The morbid
excretion stagnated, or applied to the extreme

vessels, may react on the body, and produce disease. /129/
The contagionists say the yellow fever is the ship-
-fever of the west-indies: but there is no such thing
as a ship-fever at the West-indies: it cannot exist
there. Diseases are communicated by confined
exretions; but this is not contagion,-for Pleurisy
might be communicated in this way, if the wea:
:ther were cold, or favorable.

Decem. 17th. Lecture 33rd. Dr. Rush has no doubt
but Plague, like yellow fever, may be occasionally
contagious; that is, be communicated by contagion
of excretion. When human miasma is mixed
with marsh miasma, it produces a fever
accompanied by a yellow skin. Great Britain
has been nearly relieved of fevers from miasmata
by high cultivation and cleanliness. The contin:
:uance of fevers from Animal miasmata is 15
or 20 days: it comes on gradually,-whereas bili:
:ous fevers come on suddenly. Hospital fever
is not checked by frost; bilious fever is. Diseases
of the lungs are aggravated by phlogisticated air.
A countryman is always seized with a cough
on going into a city where coal is burnt. The
Simoom is avoided by falling flat on the face;

and by walls. The Sirocco air is common air [131]
heated by passing over hot sand: it induces faint=
=ness, &c. The air is not hyperoxygenated during the
prevalence of epidemical fevers; but it is certain=
=ly impregnated with something. Is this some=
=thing a modification of Electricity? Let time
and the Chemists discover! Although the cause
of fevers be in the air, yet we may prevent
them by avoiding the exciting causes. Remote
causes seldom induce disease without exci=
=ting causes; by avoiding these we may escape
disease; and this, happily for us, is generally in
our power. Influence of particular situations.
Towns and Cities are the jails and graveyards
of men. The first town was built by Cain;
probably with a view to destroy, in a crowd,
the remorse he felt for shedding the blood of
his brother. The diseases of cities are Typhus mi=
=tior, nervous diseases, consumption, &c. A change
from vegetable diet, or mush and milk, to Tea and
Coffee or animal food will induce dysentery. A=
=liment has great influence in determining
the effect of miasma to the bowels. Dysentery
is scarce in cities; probably from the citizens

living on Tea, Coffee, wine, &c. Mountains are [133] generally more healthy than low countries. There are a few exceptions to this; but these mountains are in the neighborhood of marshy countries. The hot winds of Aleppo are very debilitating, and dispose much to disease. A mixture of airs will nauseate a person. Dr. R. never sickened nor puked in a hospital, in his life; yet he has often done both, on coming into pure air; probably by a mixture of the airs. Hospi=:tals, schools, and dwelling houses which have been newly plastered are unhealthy to be confined in: They dispose to Rheumatism & Consumption. Different diseases from the same causes, are owing to different predispositions.

Decem 19th. Lecture 34th. Change of Situation- as going from cool to warm climates- Euro=:peans arriving in the middle states in au=:tumn, are more subject to Remittent fevers than the Inhabitants; but often escape the first season. Persons going from marshy to hilly countries are often attacked with fevers: And old people, under such changes, often die from the abstraction of the stimulus of mi=:asmata. The vicinity of the sea shore

occasions Catarrh; owing to a mixture of sea and [135] land air. Influence of the Heavenly Bodies - All error is occasioned by perverted, misunderstood, or too-much-extended truth. Ancient Astrologers ex-:tended the influence of these bodies too far; and they consequently were disbelieved by subsequent ob-:servers: but they have an Influence. Diemerbroek observed that more patients in fever died within three days before & after the change (or full?) of the moon, than at any other time. A British Officer spat blood regularly at every full and change of the moon. See Moxly. - A case of Calculus was worse during the increase of the moon, and better during the decrease. Asthma is sometimes worse at the full and change. Epilepsy is in-:fluenced by the changes of the moon. Many have died during an eclipse of the sun and moon. We should attend to the influence of diurnal revo-:lutions, on the body. Medicines should be suspended, frequently, in the evening; there is often at that time an increase of excitement, and a stimulus superadded may do harm. All unusual stimuli should be avoided at this time, especially in chronic diseases. A Lady has been affected with headache during

the continuance of a Thunder-storm. Sometimes [137]
people are born with a Thunderphobia. Cowper could
predict a thunderstorm by observing Leeches. An
earthquake once banished all the chronic dis-
-eases of a city. Contagion - Small pox, measles,
chickenpox, whooping-cough, &c. act without an
exciting cause; they are contagions of secretion;
But Cynanche maligna, scarlatina, dysentery,
&c. are contagions of excretion, when they are
contagious; but they are often taken without
Contagion. Contagion is said to be received in-
-to the system in 4 ways, viz. by the lungs,
stomach, skin, and nerves. Contagion may act
immediately on the nerves, debilitating them;
or mediately through the lungs and stomach,
increasing their irritability. Bad water & Aliment
are often causes of disease: this should be attended
to by Physicians. History of Epidemicks - Epi-
-demicks affect a great number of people at
once. Sporadic cases are such as arise from
local circumstances, and affect but few at
once. Endemicks are such diseases as are pe-
-culiar to certain situations and seasons, and,
under those circumstances, occur constantly.
The Yellow Fever is an Endemick of this Country!

Stationary diseases are such as exist at all sea-
-sons in a country; as rheumatism, &c. Intercurrent
diseases, as catarrhs, supervene during the prevalence
of other diseases?- No two contagious diseases of un-
-equal force can exist in the system at the same
time: so no two Epidemics of unequal force can
exist independently of each other at once; for the
weakest will be compelled to wear the livery of the
royal disease. Dr. R. was supposed to be mad for
prescribing the remedies for yellow fever in a
case of broken leg, during the prevalence of that
fever! Yellow fever has been excited by a fall from
a horse. Any injury will excite yellow fever, when
the system is predisposed to it by the action of
miasmata. The anomalous symptoms of disease
which so often puzzle young practitioners may
often be explained by recollecting and observing this
law of epidemics. Feeble epidemics sometimes
banish more powerful ones; but the feeble one is
then in its vigor, and the other is declining; as
for instance, the small pox has banished decli-
-ning plague. A bilious pleurisy is owing to mix-
-ture of disease from miasmata and of a fever
from cold. Some epidemics never affect persons
without an exciting cause; some others affect

all without one. Epidemics sometimes af=
=fect only certain ranks, or ages, &c. Sometimes
they affect all ages, sexes, and conditions. Many
birds die or disappear just before or during
Epidemics. Timber rots or decays faster during
such times. Great and mortal Epidemics are
always preceded and succeeded by violent
diseases of a less grade. The fevers of this city
were more inflammatory in 1791 and 1792,
than usual; they would not yield to Bark. They
were succeeded by the yellow fever of 1793.
The disease was rising in violence. The decline
of Epidemics is known by the disease becoming
more tractable, and easier cured; even before
the cases have declined in number. Epidemic
yellow fever is owing to an inflammatory state
of the atmosphere; but it requires the co-oper=
=ation of miasma. Yellow fever never was found
unconnected with miasmata. Epidemics change
their nature, or appearance, in the course of a day.
The Ancients adored the bird Ibis, because they thought
it devoured the flying serpents which brought the
plague; so we, with about as much philosophy

and discernment, adore the Quarantine Laws, under a belief that they protect us from the yellow fever! 

Decem. 20th. Lecture 35th. Sick people, especi=ally in chronic cases, should avoid any ad=ditional stimulus in the evening; as sitting up late, going to parties, &c. Intercurrent diseases are such as are owing to the sensible qualities of the atmosphere; as heat, cold, &c. and include catarrhs. Endemics, and Indigenous diseases, are synonymous: they are such diseases as oc=cur constantly, and are expected every year; as yellow fever, Intermittents, &c. Stationary diseases might be called endemics. Some diseases are not influenced by the weather; as Influenza. Some=times pestilential fever appears in the form of miliary fever; so that miliary fever is a form of Plague. Sometimes pestilential fever appears in the form of cholic, mania, &c. — Diseases from Aliment and drinks. Aliment acts from quan=tity and quality — 1. Quantity — It distends the sto=mach; induces indirect debility; and leads to two vile practices, drinking and smoking. Too much nourishment is also thrown into

the system. From 4 to 6 pounds is enough [145] for a person who does not work: i.e. in 24 hours. But quality should govern it; for more bread is required than meat, &c. Some people have lived a long time without aliment; here the system was sustained by the stimulus of dis=ease. L. Cornaro, who dieted himself, when he overran his rules, found his temper and health affected. This fact is of importance, and will be applied when we come to Therapeutics. Famine causes an accumulation of bile in the gall-bladder. Scotch-men fight best when they are hungry! Fish appears to have been the first animal food of man. An exclusive diet of fish changes the skin, induces lice, leprosy, &c. A diet of land animals alone, in=duces fetid sweats, &c. The Indians escape those diseases when they live exclusively on venison and buffaloe flesh; for wild animals dispose less to them than domestic ones. In the days of Queen Bess, animal food was the constant diet of the English. The usual Breakfast of her maiden majesty was a Beefsteak & a mug of Beer! And in those days, in France, there were two thousand Hospitals for Lepers. Cheese pro=duces Heartburn, and costiveness: and should be forbidden in all cases where there is a

disposition to costiveness. Old, or spoiled oy-/147/
-sters, cause cholera morbus, &c. Too long in-
-tervals between eating is very injurious; the
habits are broken, and disease induced. We
should constantly advise our patients, when
they travel, to eat often: where the stages
are long, to carry gingerbread, or biscuit, with
them. Irregularity in this respect is a fruitful
source of disease. A sudden change from a-
-nimal to vegetable food, induces costiveness, &c.
And the contrary change has caused phrenzy.
Major Reed died of a schirrus in his stom-
-ach, which was caused by eating an Ice cream
in warm weather, in New York, the year before.
The stomach easily recognizes its old acquaintance.
Cheese-cake has lain undigested in the stomach
for three days, and caused violent vomiting
and fever; instanced in a Lady, who was
relieved by an emetic on the third day.
The practice of throwing pennies into a pot
of boiling peas, or beans, to preserve their color,
has done much mischief. Salt meat is best
calculated to prevent the diseases of summer.
Condiments. Some nations are so fond of
common salt, that they substitute vegetable

alkali, when that cannot be had. Salt in /149/
excess causes scurvy. Mustard in excess caus-
-es gastrodynia, &c. Storekeepers get dyspepsia,
by tasting sugar, every time they show a
sample of it.

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Decem. 21st. Lecture 36th. Laws of Epidemics. All epidemics, with the exception of Influenza, are more or less influenced by the sensible qualities of the atmosphere. No two epidemics can act on the bloodvessels at the same time. When two or more epidemics appear at the same time, the strongest will always predominate; and compel the others to do homage to it by wearing some part of its livery. It some-
-times not only exacts this homage from them, but even chases them away; and some-
-times follows them into the succeeding season. Aliments & Drinks, diseases from. Women are more subject to gout than men; but it does not appear so often in the feet: it is more frequently in the head, & bowels, &c. They are predisposed to it from the excessive use of Tea and Coffee. Drinks. Water affects by its coldness. Three teeth are drawn in summer to one in winter. Cold water

drank in summer, when the system is very hot, induces spasm in the stomach, syncope, &c. Thirst is best allayed by water which has been deprived of some of its coldness. Water which flows over limestone is generally possessed of a purgative quality. When obstinate diseases of the bowels occur in certain situations, we should suspect the water. A gentleman of this city died of tympanites from drinking cold water in large swallows; as a gill, or more. Wine is more apt to occasion gout when drank alone, than with aliment. Some persons cannot taste cider without being affected with pain. Beer and cider, when drank cold, produce the same effects from that cause, as cold water. Ardent spirits have the most terrible effects on the system. Long speaking, and long sitting in company, dispose to the use of ardent spirits: As also does the practice of taking medicines in spirituous liquors; such as Dupham's Tincture. Seven Brunonian Physicians in this city have died martyrs to the system published by Brown. Ardent spirits are pernicious in every form. Avoid them, Gentlemen, in every shape — The morning dram, the meridian bowl, and the evening sling! —

Diseases from Dress- The Quality of dress acts in [153] two ways; first, by its powers of conducting heat; and secondly, by its retaining the matter of perspiration. Dr. R. thinks the health of mankind would be improved by ceasing to wear linen next to the skin. Headache has been caused by tight night-caps, &c.-

Decem. 22nd. Lecture 37th. Poisons- By poisons Dr. R. means any substances which, when conveyed into the system in small doses, produce disease and death. Death from the bite or sting of a spider is not death from poison, but from inflammation succeeding a local poison. Vegetable poisons are very numerous. The Buckwheat just after it comes up, is a poison to animals. Dr. Woodhouse had nearly lost his life by breathing hydrogen gas, an aërial poison,- it induced malignant fever, which yielded only to venasection, &c. Some poisons produce Tetanus; as strammonium, and hemlock dropwort. Some poisons act on the blood; as the poison of the viper. Some act on the skin; as the cashew-nut, &c. Some act on two, three, or more of those systems at once; as miasma in Yellow-fever. Many causes have specific modes of destroying life. Dr. R. is inclined to believe in those slow

poisons with which slaves are said to poison [155] their masters. They are chiefly of a vegetable nature. Dr. Bond and his wife were destroyed by copper, which acted as a slow poison. — Worms — They are found sometimes in the liver: See Dr. Bond's narrative. Sometimes in the bladder; These are short, red worms — they are sometimes discharged in urinating. A worm was snuffed, by a person, into the frontal sinus, from a rose; and afterwards discharged, much grown in size. There are four kinds of worms found in the bowels; viz. Ascarides, lumbrici, Taenia, and Cucurbitaria. The lumbricus, or round worm, is different from the earth worm; as has been proved. It would appear that Worms exist in the bowels before birth; at least it is certain they have been found before the child had eaten any thing but mother's milk. Dr. R. says it is easy to conceive that Worms may be taken into the bowels, from the liquor amnii, by the child. — Diarrhoea has been caused by pieces of copper in the stomach uniting with the acid, and forming an active salt. Madness has been caused by the working out of shot from a foot, where it had been lodged.

Capt. Dale had a bit of iron in his foot [157]
eight years: at length it suppurated, and the
iron was discharged.—In cases of long costiveness,
the perspiration may carry off the faces in great
measure; or perhaps the lymphatics may perform
the office of scavengers, formerly attributed to them.
Suppressed perspiration only causes disease when
the body is previously debilitated. In cases of obstruct-
-ed bile, the stools become white from the defect
of the coloring matter, and stimulus, of the bile.
Suppressed menses, when acute, and especially in
the winter season, cause inflammatory fevers; &
common emmenagogues, as pennyroyal tea, &c.
are very injurious. Venesection & cathartics
are more proper. Too much sleep causes costive-
-ness, &c. Those cases of long wakefulness related, ought
to be believed with caution; for the accounts were
most probably received from themselves; and
they may be deceived. Watchmen and bells in
cities, cause wakefulness in visiting strangers;
and persons long accustomed to noises cannot
sleep without them,—as in the case of the
Watchmaker, who had to borrow a number of
watches for the night, to enable him to sleep.

Effects of the mind on the body- The exercise of the understanding induces debility: Night studies, night air, cold, &c. connected with that exercise, in studious men, all debilitate the body. Men of active minds on being imprisoned, or confined, have become diseased; or so much debilitated that melancholy has come on. Passions- The stimulating passions are similar to heat; seda:tive passions to cold. Mixed passions are hope, desire of life, envy, &c.. A man who had sud:denly acquired a great fortune, hung himself because he had to buckle and unbuckle his shoes every day!

Decem. 23rd. Lecture 38th. Influence of the Passions- Fear, in excess, causes globus hystericus involuntary discharg of the faces and urine, &c. Fear is subject, like all the other passions, to com:binations. From the accumulated excitability in consequence of fear, cowards often perform greater feats than the most brave. Ambition is an inflammatory fever of the mind. Venery in excess causes diseases of various kinds. The last Emperor of Germany is said to have died of a priapism in consequence of taking Cantha:

:ridey to excite venereal appetite. Influence of different States of Society. The Typhus fever may be considered as exclusively the disease of the well-fed citizen; while porters, Sailors, &c. have pleurisy, rheumatism, and the like. The time may come, when these distinctions will be so nice, that a man will blush to own that his Father died of a vulgar dis:=ease; such as pleurisy, &c.! Influence of Government. There is in all Slaves an absence of the stim:=ulus of the love of Liberty. In the Eastern countries, which are all despotic, Irritabi:=lity predominates over sensibility; and hence nervous diseases are scarce. Mania is seldom known. The variations in mixed Governments, are like the extremes in tem:=perature; and have similar influence on the system. Influence of Religion. Christianity exerts the most friendly influence on the system. Every system of religion which is unfavorable to health, is false. Influence of Employments. Lawyers and Physicians, from blending exercise with study, are more healthy than other seden:=tary and studious professions. Physicians

who ride much on horseback are subject to /163/
costiveness, piles, &c. Diseases from Amusements-
A young Lady first felt the symptoms of a
fatal Aneurism, in dancing. Tragedies excite
virtuous sympathies, but never prompt to
virtuous actions. The amusement of hunting
has induced violent fevers, &c.

Decem. 24th. Lecture 30th. Influence of Custom-
The practice of taking drams in the morning,
called "Anti-fogmatics", and bitters before din-
-ner, leads to drunkenness. Ringing of bells at
funerals have a bad effect on sick people.
Diseases from Ancestors- are divided into
congenial and hereditary. The congenial are
discovered immediately after birth; as lues, &c.
Congenial deformity is such as imperforate
anus, crooked limbs &c. We will often find
children of gouty parents affected with chro-
-nic rheumatic complaints: We should sus-
-pect such cases: They are hereditary gout; but
the system is not yet able to throw it to
the extremeties. One twentieth part of the
intemperance will induce gout in the
children of gouty parents, that is necessary
to do it in others who are not so circumstanced.

Systems of Medicine - Those Physicians who bor- [165]
-row from each system, will do best. The Buff
on the blood was called lentor, by Boerhaave.
Many children have been destroyed, by purg-
-ing for worms. Cullen has done harm by
his prescriptions of Opium, under the belief
of its sedative operation; And Brown, by
prescribing it for all diseases. There never was
a Physician without Theory. The enemies of
Theory, are only enemies of those they were
not educated in. The only way to avoid the
distressing consequences of quackery, is to make
Medical knowledge a part of general education.
Many evils result from empirical practice; and
also from the habitual use of medicine. The
butter-nut pills cause vertigo, when habitually
used; but they may be used in acute diseases.
So may spirituous liquors, where the symp-
-toms require it; but not in chronic diseases.
The habitual use of them is highly dangerous.
The use of bitters in gouty patients is bad. -
The imprudent use of sweating in the early
stage, or during the excessive action of fevers,
has done much harm. It should never be used
without attending to the state of the disease.

Exercise, where there is preternatural excite-
-ment, always does harm. Pediluvia during
the predisposition, or rather in the forming stage
of fever, are very useful; but are hurtful when
there is too much action. Influence of Sympa-
-thy and Antipathy - Sore eyes are caught by look-
-ing at them. Diseases from antipathy are either
congenial or acquired: as a morbid antipathy
to water, cheese, &c in the former case; and
of dogs, cats, &c. in the latter. ———

Decem. 26th. Lecture 40th. Influence of Asso-
-ciation of Ideas - This is of immense application
in the cure of diseases; especially those of the mind.
The associations which induce Epilepsy, and peri-
-odical fevers, may be broken, or new motions in-
-duced, and the recurrence of the disease thereby
prevented. A Lady had periodical sneezing every
year, in September; probably first occasioned by
the temperature of the air; and was afterwards
associated with the same temperature. In
cases of local disease, especially, we should
go a great way back in our inquiries of causes:
as accidents affect for a great while afterwards.
Dr. R. never considers blows as trifling; es-
-pecially those on the head: but orders bleeding, purging, &c.

Of one hundred persons born, fifty, on an average, die under ten years of age; twenty more die under the age of twenty one years; ten between that and thirty; six more under forty; five between forty and fifty years; and three between fifty and sixty years;—so that only six live above the age of sixty years. Children are disposed to disease, from the great activity of their passions, tenderness of their skins, &c. They are disposed to Hydrocephalus internus, from falling and thereby affecting their heads; for children fall 50 times where an adult does once. We shall often be consulted by Boys & Girls about pains in the head and joints, called growing pains. At puberty we are disposed to Consumption, &c. Young people, about puberty, are often affected with vertigo. This Dr. R. has often observed; but it is not mentioned by authors. Girls are more affected with headache at puberty, than Boys. 63 years, is the grand climacteric of Life. The excitability is accumulated after this. After 80, and even after 90, old people are very subject to acute inflammatory diseases; owing to the great excitability of the arteries at this period of life. In old age the perspiration becomes acid; Insis senilis comes

on, &c. There are very few deaths from old age. The debility suffers the excitability so to accumulate that the least exciting stimulus extinguishes life. Temperaments are not altogether owing to habit; the foundations of them are laid before birth. In the nervous temperament, the nervous system is very irritable. Diseases are varied by temperament. The same Epidemic shall cause very different, and apparently opposite symptoms of disease in different temperaments; and yet they are all to be treated alike.

Decem. 27th. Lecture 41st. We should attend to the temperaments in our prescriptions; for the same disease will affect different parts in different persons, and those affections have received different names from Nosologists; but it is the same disease, and requires the same treatment. Predispositions to disease from single and married life. The Plague attacks new married people, for obvious reasons. Bearing children is a cure for fluor albus. It is barren women and old maids, who are most subject to it. Pregnant women seldom die

of consumption; nay, consumption is generally suspended by pregnancy: But they are much affected by small-pox and influenza. Those diseases often cause abortion, unless large bleeding be used. The sudden suppression of the milk, whether from weaning, or cold, disposes to schirrus, & cancer. There is also a determination to the lungs. The final cessation of the menses is attended with occasional eruptions of them, called, by the good women, "dodging". During menstruation the uterus seems to be in a state of inflam:mation; and when it does not terminate by resolution, it is, like other inflammations, turned into schirrus and cancer of that viscus. Hence schirrus uteri seldom occurs until the cessation of the menses. Deformity is the consequence of disease. Dr. R. never knew a dis:ease from defect of fat; but many from ex::cess. A large head and short neck, dispose to palsy and apoplexy; a narrow chest, to asthma and consumption. Seven months children are generally weakly; but the pre:sent King of England /Geo. III./ is a 7 months child,

and has had tolerable health, and lived to a /175/ good old age. Artificial disease is caused by half cured agues, &c. inducing jaundice, dropsy, & the like. Stricture in the urethra, and water in the ventricles of the brain, cause other diseases. ——— End of Pathology. ———

Decem. 28th. Lecture 42nd. Therapeutics, or Methodus Medendi — Dr. R's. Therapeutics comprehend not only the medicines during the disease, but also during predisposing debility, and convalescence. Physicians have been called the Servants of Nature, by those who thought nature all-powerfull in curing diseases. Nature is often ineffectual, often excessive in her operations; as in cholera morbus, &c. Sometimes she is idle; as in cancer, &c. The pain is sometimes greater than the danger; as in toothache and paronychia: sometimes less; as in Tetanus, & Phthisis. Every practitioner takes the patient out of nature's hands. What affinity is there between the exhibition of opium in Dysentery, or bloodletting in pleurisy, and the operations of nature, in those diseases? We should treat Nature like a noisy dog in a room;

turn her out and shut the door! But still [177]
we may have an eye to her operations, in Epi=
=demics. If people are taken with a Lax, we
should resort to purgatives: if with hemorrhage,
bleed: if with a tendency to sweat, use sudor=
=ifics, &c. Remedies thus designated, will gener=
=ally succeed; but nature will not cure the
disease, herself. She acts as a "person", or di=
=rector; she points out the way, but does
not move herself. If epidemics discover a
disposition to eruptions on the skin, use
remedies calculated to act on the skin; as
Blisters, &c. If the Patients hawk and spit
much, pour in the mercury to excite
a salivation. The army who went to
quell the Western insurrection, were cu=
=red of hemorrhage from the nose, by ve=
=nesection. Eruptions on the heads of chil=
=dren, should not be repelled without
at the same time inducing a diarrhoa,
or some other discharge. An habitual
discharge of sweat from the feet, should
not be checked too suddenly: it has caused

dyspepsia, and a loss of teeth. Itch should [179] not be cured when it is vicarious with a more serious disease. The cure of gutta rosea has caused palsy and epilepsy. No two successive Epidemics are so perfectly alike as to require exactly the same treatment. Every epidemic should be studied as much as the first was. National peculiarities should be attended to. Germans and Frenchmen require soups and wine; Englishmen cheese and beer. &c. (Fable of the mule and ass with the bag of salt & of wool). One man's cure is often the cause of another man's death. Habitual diseases and also habitual remedies should be inquired into. There are family diseases, distinct from hereditary; for instance, healthy parents shall have a family of children all swept off by consumption. We should go back a week in order to find out the remote cause, in acute diseases: And in chronic cases, much longer. The disease is not always cured by removing the remote cause; as may be seen in cases of wounds in tendinous or nervous parts,

and in worm fevers, &c. The system has here taken on the habits of wrong action, which continue after the cause is removed. We should infuse hope into every part of our patients minds. 

Decem. 29th. Lecture 43rd. The predisposing cause of all diseases is debility. The moment of remission of disease, is the period of debility; and then we should pour in the cordial remedies. We should tell our patients always to take their medicines more largely when they feel as if they had least need of them. A patient with nephritis was ordered to take decoct. uvæ ursi during the intermission; he only took it when the paroxysm came on, and then it always aggravated the disease. We should watch our patients, and often give them their medicine with our own hands. Choice of Medicines - Formerly, medicines were valued according to their essence, disgusting qualities, &c. as aurum mosaica, pulv. Cranii humani, &c. But all the diseases which we can cure, may be cured by a few remedies properly selected, and applied at the proper time.

Some are in favor of a combination of medicines/103/
among whom is Dr. Tordyce. He infers this, from a
combination of spices, &c. with aliment, assisting
the stomach in retaining and digesting it. He
says other bitters assist the stomach in retain=
=ing bark, &c. But Dr. R. does not agree with him.
Consultations are very useful. They should be re=
=sorted to in all doubtful cases. In all cases of
danger which are not doubtful. In all chronic
cases. In all desperate cases: And in cases where
there is probability of being called before courts
of justice; as in cases of assaults, &c. We should
not, if practicable, consult with those of differ=
=ent opinions and practices. We must always
ecchymose morbid excitement if we wish
to rise to reputation in practice, while no=
=sology has so much influence on mankind.
Medicines have been divided into sedatives
and Stimulants. We begin with sedatives;
because sedatives are generally first called
for, when we see a patient. They are Blood-
letting; Cold, as in air, water, Ice; Fear; Fasting,
or abstinence: Sometimes total abstinence
for two or three days is necessary. Abstinence
acts by diminishing the fulness and force

of the Bloodvessels. The pain of hunger also over= 
=comes diseases of plethora, by exciting a new action.
It is only in chronic cases, that confidence can
be placed in it; for in acute diseases, more
powerful sedatives must be used. Rest is a seda=
=tive; so is darkness. It is true that in darkness
the excitability accumulates; but it must be
suffered gradually to expend itself; or it may
be expended by stimuli on parts not vital.
Dr. R. believes that different stimuli may act
at the same time on different systems of
the body; but not on the same system; as
for instance, the bloodvessels, nerves, &c. Cathart=
=ics are indicated in cases of accumulation
of slime, &c. in the bowels; in plethoric hab=
=its; in dryness of the skin, &c. Cathartics may
be given sometimes as alteratives: diluting
drinks are generally given. Cathartics are
forbidden in cases of hemorrhage from the
bowels; in some stages of colica pictonum,
&c. Emetics. Vomiting may sometimes be
excited by tickling the fauces with a feather,
or running the feather down the Oropha=
=gus, in cases where the irritability of the

stomach is destroyed, and cannot be acted 
on by other means; for the irritability of the
fauces is not destroyed. Emetics are indicated
in the forming stage of malignant fevers.
They act by equalizing the excitement.—
Decem. 30th. Lecture 14th. Emetics should
be taken in divided doses, in order to prevent
too violent action. Dry vomits act more
powerfully. To prevent spasm in the
stomach, the patient should not puke in a
lying posture. Emetics are improper in per-
sons who have ruptures, &c. Diaphoretics.
In some grades of action, warm applications,
as warm sand, salt, &c. and, according to the
state of the system, cold air, cold water,
exercise, rest, &c. will produce sweating.
Diaphoretics also act on the pores through
the medium of the stomach; as Ipecacuan-
ha, Tartar Emetic, pulvis Doveri, Eupatorium,
&c. Eupatorium and nitre will open the
pores without nauseating. Medicines act
on the skin through the stomach by
continued sympathy; for the same skin
continues to the stomach. They act by

direct and reverse sympathy. Sweats [109] are proper in fevers of weak action, where the lancet is not safe; and in all diseases which have a centrifugal tendency; as gout, rheumatism, &c.- In diseases of centripetal tendency, i.e. to the bowels and other viscera, sweats often increase the disposition to congestion of the viscera. Sweats never do harm in rheumatism, only when they are used too soon, before morbid action is properly reduced. Sweating is facilitated by small divided meals, of 4 or 5 in a day. A full stomach is not favorable to diaphoresis. We should remit the sweating once in a while, or the patient will be exhausted, as in other cases of excessive discharge. Care should be taken to prevent the patient from catching cold, as it is called; we should therefore avoid giving cathartics at the time, or applying blisters to the side; for on the patient getting up, or having his blister dressed, he will catch cold. If a blister

on the side be necessary, the side should 
be kept warm by a pan of coals, during the
dressing. Diuretics - are forbidden in all
cases of inflammatory affection of the kid:
:neys. Sialagogues - Mercury acts by revul:
:sion, &c. Salivation is the first remedy of
nature; as we see in Aphthæ in children. -
It is not an "unnatural" remedy. A
spontaneous salivation often occurs in
cases of malignant smallpox; and when
the salivation is suddenly checked, the
disease is generally fatal. The patient is
suffocated, as it were. Dr. Redman, in or:
:der to prevent its being checked, was in
the practice of keeping up an artificial
salivation, by mercury. We can manage
salivation better than nature can, with:
:out letting it prove fatal, as she does,
in Aphtha and malignant sore throat:
But it must be confessed we have it not
well enough under our command; for
we cannot always salivate when we
would; - Nature does not always when
she should. Ice applied to the head,

sometimes accelerates salivation. Jalap, in small [193] portions, has aided the operation of mercury. Calomel may be rubbed on the gums, &c. The action may be checked, when excessive, by purges, &c. exciting new action. It is not necessary that the patient should always spit, to experience the good effects of mercury. Salivation is forbidden in fevers of very high or low action - in children under 6 years of age, and in old men after 60. The jaws are apt to slough at those ages. We do penance, by salivation, for curs:ing, blasphemy, &c. Expectorants - Liquorice is a demulcent, as are flaxseed, gum arabick. Blisters are indicated in general disease of moderate action; and in local congestion. Here slow blisters will do. Also in cases of sud:den congestion, which threaten life immedi:ately. Here the hot water, or sudden blister, is proper. Blisters are forbidden in persons highly irritable, and subject to strangury from the use of them. [Sprinkling the blis:ter over with powdered camphor is said to prevent strangury; but I have never tried it.] —

Decem. 31st. Lecture 45th. Issues act directly or indirectly in restoring equable

excitement. Stimulants and Tonics. Some [195]
medicines act upon certain parts with more force than upon others; but all have some action upon every part. Asafetide acts upon the nerves; oil of amber on the muscles; some bitters act on the stomach, chiefly: Bark on the bloodvessels; and calomel on the glands &c. Opium acts on all parts of the body.
There are diseases which yield alike to stimulants and depletion; as moderate bilious fever, and other centrifugal diseases, as Rheumatism, &c. But even here, stimulants break open the door instead of unlocking it. Where there is a determination to the viscera, or a centripetal disease, stimulants do harm. When stimuli occasion quickness and smallness of pulse, we may conclude we have begun too soon with them. Venesection favors the operation of stimuli. In Tetanus bleeding is useless; except in cases of symptomatic tetanus, attended with inflammatory action. Where excitability is accumulated, in acute diseases, stimuli are improper, except in very small doses. There is one disease in which we may use stimu-

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=li early, viz. Jail fever, or the low state of chronic fever:- Here the excitability is exhaust=
=ed in the beginning, and requires stimulus.
This was the case in the soldiers in the army,
frequently, during the revolutionary war.
They had exhausted their excitability by fa=
=tigue, &c. and required bark and wine im=
=mediately. This often strangled the disease
in the beginning.- Change your medicines;
and even the part of the body to which
they are applied,- from the stomach to the
skin, and rectum. Opium, when it ceases
to produce effect in the stomach, will cause
sleep by injection: And a bark jacket will
prove febrifuge when it is inert in the stomach.
General Frelinghuysen was in the practice of chew=
=ing Tobacco for the most part on one side of his
mouth; and whenever he changed it to the
other side, it nauseated him. A snuff-taker
used to change nostils, to admit of an increase
of excitability. These facts are of great importance
in practice. Feeble medicines sometimes act
when powerful ones fail; upon the same
principle that the Lady could hear a pin
run through paper, when she could not hear

cannon fired. An acid will stimulate [199]
when the excitability has been exhausted
by an alkali; and vice versa. An important
fact. Diseases are cured, or derived from im=
=portant parts, by exciting new diseases in less
important ones. The proper point for exhib=
=iting medicines, must be attended to; for
if mortification follow a blister, - diarrhœa
from a purge, - or a rupture from a vom=
=it, our own reputation, and that of the
profession, may be injured. When patients
are predisposed to these, we should not admin=
=ister the medicines. The usual emunctories
of morbid excitement, are the skin, throat,
and bowels.

**January 2nd. 1804. Secture 46th.** We may often cure one disease by exciting morbid action in another part, which will transcend it; & when a disease has been of some continu=
=ance, a less degree of action may remove it; as the small pox expels plague of some continuance. The exercise of the passions will suspend disease; as anger suspends hunger, &c. See Darwin. Pleasant sensations overcome strong pain sometimes.

Though debility be not a disease, it is often worse [201]
than disease. Many die of debility alone. The cure
is effected by tonics. They should be given in small
but long continued doses. Tar pills are a good
tonic - they act on the whole system. Aliment
is the best tonic. If there be no appetite for
aliment, what then? Why still prescribe it.
Persevere - for we do not wait for an appetite
in order to prescribe Bark, nor salts. We must
make Aliment a medicine, and give it in
small but repeated doses. Solid food produces
most flesh; fluid, most fat. Many cures have
been effected by confinement to one kind of
aliment. A diet by weight and measure
of one kind of food, has effected cures of Epilep-
-sy, and other diseases. Drinks act as tonics -
The best are malt liquors; next White and
red wines, as Madeira, Port, Sherry, &c. The
warm bath should only be used about 1, or 2, O'
clock: The temperature from 96 to 104 or 100.
The first effect of the cold bath is sedative. Dr.
Franklin's air bath is often useful; it consists in

getting out of bed, and walking about the room awhile, or even kicking the bed clothes about, to let in fresh air. Exercise is a noble remedy in cases of debility. It is either active or passive. Walking, for instance, is an active exercise; swinging and rocking are passive. Friction is a valuable remedy. It is not only a tonic, but it increases and improves the secretions. A cow that is well curried and rubbed, will give more milk than one that is not. Boerhaave, in his Letters, recommends friction in almost every disease. The cradle, chamber-horse, rocking-chair, swing, shuttlecock, and other partial exercises of the limbs, have all been found useful remedies. Walking is said to be a preventative rather than a cure; but excitement may be worn down by walking. Mania that required one bleeding might be cured by a long walk. Exercise, in cases of great debility, should never be prescribed before breakfast. Changes of living, occupation, &c. all remove diseases of debility; especially if we change clim-

=ate, and go to one warmer and more equa=
=ble in temperature. This applies particularly to
oldish people. Rising out of bed at the same
hour every morning, is useful. Avoid excess
in venery - travelling is good to prevent this.
Intoxication cured a gentleman of nervous
debility. Dr. Cleghorn found himself the better
for getting drunk once in a while; but
he felt worse the next day - just so with med=
=icines: the patient often feels worse for a day
or two, in consequence of taking them; but
is better afterwards. After less disagreeable med=
=icines have been tried in vain, mercury
should not be overlooked, as an universal
stimulant. In cases of expended excitability,
as gangrene, the most powerful remedies
are to be used to make the living parts throw
off the dead:- Externally, fermenting poultices,
&c. & internally, bark, &c. - Demulcents cure
diarrhœa, dysentery, &c. Medicines which re=
=move obstructions, are called deobstruents. Mer=
=cury is a powerful deobstruent. Obstructions
are always the effects of acute or chronic
inflammation. Where bleeding is properly &
timely used, they seldom, if ever occur.

Pain, like obstructions, is the effect of disease, or a disorder. When we cure pain by opium, we should take care that pain is not seated in important or vital parts; for opium disposes to effusions, because it cures by wearing down the system. Pain is relieved by venasection, fasting, cold water, sweet oil, &c. gentle friction has cured the belly-ache, in children, frequently; also binding a bandage, wet with spirits, round their bellies. Fear relieves pain. Hollowing relieves pain; as does cheerfulness, if the pain be moderate. Pain is relieved by exciting pain in another part of the body; as in the dog, that took nux vomica and was relieved by whipping. Two children hardly ever cry together; the one that cries loudest generally silences the other, by relieving his pain. Other loud noises relieve pain. A gentleman relieved his pain by making two negroes sing loud. The Metallic Tractors have no specific virtue. Life consists in a successful controversy between stimuli, and the tendency there is in our bodies to death. No one mode of living will procure longevity in all systems, no more than one medicine will cure all diseases.

Dr. Rush was once attached to nosology; but by observation was forced to reject it. Diseases cannot be classed like plants and animals. These never change their nature, or appearance; but dis=eases are constantly changing. The gout, for in=stance, occupies, at times, every part of the body; yet it is always gout. Diseases cannot be divided, or classed, by their causes; for differ=ent remote causes will induce the same fever; and different forms of disease will appear from the same exciting cause: as exposure to cold will prove the exciting cause of Colic, Yellow fever, or Gout. Never will our art be perfect, until we can arrest diseases in their forming stage; and never can we do this until we believe in the unity of disease. Phy=sicians seldom differ about the remedies; most of their differences are about the seats & names of diseases. Dr. R. divides the body into several systems. Diseases require attention to their predis=position - to their force - to their seat - to the habits of the patient - to the season of the year - and during the convalescence. How many patients die, like Gen.

[redacted]

Wolfe, in the arms of victory! This is owing to 
neglect, after the violence of the disease is over. A
Physician may be compared to a mariner: He
must watch, and reef his sails as occasion re-
-quires. Dr. R. with Gaubius and Cullen, says the
proximate cause of disease is ipse morbus,
or the disease itself. The effects of morbid action
in the arterial system, are inflammation and
effusion. The word inflammation has done as
much harm in medicine as debility and pu-
-trefaction. The predisposition to fever often exists
for weeks and months in the system; waiting
the cooperation of an exciting cause, or irritant.
If the predisposition be to a malignant fever,
it discovers itself in the eruption of old sores,
lassitude, &c. Here, low diet &c. must be used, &
avoid exciting causes. The forming stage of disease
consists in predisposition, indirect debility, &
a small degree of morbid action. A Gentleman
of this City could always tell when disease
was forming, by his distaste for tobacco. In the
forming stage of disease, children sleep more
than usual; their hair is crisp, &c. Remedies
for the forming stage - 1. Fasting; the Player who
never was sick, in consequence of this practice.

2. Rest - or relaxation from business - Going to bed [213] is best; as the muscles are all relaxed, and invite an equilibrium of excitement. 3. Gentle stimuli; as a warm bed - distending the stomach with diluting drinks, &c. Mr. Brisbot used a more than ordinary application to business, with success. 4. Gentle evacuations -, as purges - Puerperal fever is generally prevented by a gentle purge, given shortly after delivery - 2. Gentle Emetics - 3. Gentle sweats - 4. Small bleedings. Dr. R. was cured in the forming stage of Yellow fever, by getting wet in a Shower of rain.

Jany 4th. Lecture 40th. Dr. R. says his division of diseases, according to the systems of the body, is erroneous, and very imperfect; but is the best he can think of. Yet no disease affects one system exclusively; not even hectic fever, which is as nearly a disease exclusively of the arterial system as any. There are two stages in which diseases may be prevented; viz. in the predisposition, and in the forming stage. When the system is predisposed to erect morbid action, such remedies as lessen the action should be used, as fasting, small bleedings, & avoiding irritants:

Where the predisposition is to weak morbid ac- /213/
-tion, use gentle stimulants. Thousands might be saved from yellow fever, if they were seriously informed of it in the forming stage. Dr. R. believes that when fever is formed completely, it will run its course. All that we can do is to mod-erate, and depress or raise, pro re nata. In the malignant state of fever, the bloodvessels are paralyzed from excess of stimulus. The gang-renous state of fever, is when violent inflamma-tory fever is left to nature, and runs on to mortification. Synocha fever occurs in pleurisy, &c. Synochus, in mild bilious fever, gout, &c. Synochula, in chronic rheumatism, &c. Ty-phoid is a medium between synochoid and Typhus; it is the slow nervous fever of Dr. Butler. Hectic fever appears to be al-most exclusively a disease of the bloodvessels. The intermitting state is common to all the forms of fever mentioned. Febricula, or Inward fever, is when the muscles are not much af-fected, somewhat like hectic - the patient walks about. - Cure of Fever - Evacuants, Se-datives, and stimulants; internally & externally.

In fevers of excessive action, Bloodletting is indi- /217/
-cated in various ways; it checks nausea and vomiting, in malignant fever; and favors the operation of medicines,-particularly Mercury, cathartics, and diaphoretics. Venaesection fre-
-quently moistens the tongue, and diminishes pain, especially of the head. Dropsies from autumnal fevers, have become scarce, in consequence of the liberal use of bloodletting: so have jaundice, and hepatic abscess, &c. Weak-
-ness is no objection to venaesection; we do not prescribe for the constitution of a patient, but for the degree of morbid action. Dr. Griffith bled a young Lady 150 times for Phthisis- a dropsy came on; it was a dropsy from indirect debility- he bled her yet more, and cured her dropsy! Dr. R. cured coldness in a Lady, by venaesection: the 4th. bleeding banished the coldness to her feet and half of her leg: a 5th bleeding removed it intirely. In diseases disposed to sweating, venaesection is not forbidden. We should, indeed, follow nature, and favor the sweating; but in-
-stead of leaving but one door, we should make a roman amphitheatre of the system, and open several doors: especially open a

doot in the veins. It was formerly the prac-
-tice not to bleed after the 5th day, in pleurisy;
but while ever there is a tense pulse and
pain, bleeding is proper. Why should pleu-
-risy be privileged to more bleeding than yel-
-low fever, or any other violent disease?
Venaesection has been forbidden, by the pa-
-tient becoming apparently worse after it;
attend to this — In many cases, and indeed
always where the pain, heat, &c. are in-
-creased, it is thereby indicated powerfully,
and should be used until it ceases to
do so. Dr. R. wishes the term nervous could be
banished from the nomenclature of diseases.
We have nervous headaches, nervous cholics,
&c. but the nerves are affected secondarily. The
nerves, he thinks are inferior to the blood-
-vessels in importance.

Jany 5th. Lecture 19th. Bloodletting contin^d.
This remedy has been objected to, as weaken-
-ing; but the morbid action must be sub-
-dued before tonics can be given with safe-
-ty. It is objected to, because it is supposed
to render itself necessary afterwards during

life: but if we bleed during morbid action we only reduce to the healthy point: and indeed we often bleed where the vessels are not yet affected; as in incarcerated hernia; and very properly too. It is true, if we bleed in health, debility will be induced, and plethora will come on, rendering future bleedings necessary. Emetics are not subject to the control of a physician; and are not so safe as venesection. Purges are in the same dilemma. Diaphoretics are often ineffectual, and are also unmanageable. Salivation is frequently an improper remedy in old people. It is also a disagreeable remedy. Abstinence is too feeble and slow a remedy. It is like waiting for the rays of the sun to dry up the overflowing of a river, instead of digging a drain in the ground. These remedies act on the blood vessels indirectly; and they often have but little effect on them. Like a proud Tyrant, they must be attacked immediately, and not through any indirect medium. We must bleed. Venesection is a delicate remedy - fit for Ladies! The human body,

unless where the bloodvessels are insulated, it is like a pipe of wine; what is drawn from one part is drawn from all: Therefore we may use more than one of those remedies at once, if the disease call for it. Su. Dr. Ro. Works.

A young Lady who had heard of the good effects of bleeding in fever, and whose physician would not bleed her, feigned a pain in her side in order to get bled; the physician then bled her and cured her.

{Note. I here mised three of Dr. Rush's Lectures, in consequence of ill health.—}

## Janr. 10th. Lecture 33rd. Hectic Fever.

Sometimes chills are not succeeded by heat nor sweats. Sometimes chills occur in the middle of the fever. Great pain, resembling rheumatism, sometimes occurs. Sometimes hectic fever comes on suddenly; but most commonly steals on gradually. It would seem as if the arterial system alone suffered, in this disease. Schirri, poisons, some wounds, and abscesses, &c. but above all ulcers in the lungs, induce this disease. Dr. R. believes the excitability of the system may so accumulate that the usual stimuli may induce hectic fever; as we see it is brought on by a meal, especially a full one. Neither empiricism nor

theory have led to a cure. Neither Bark, steel, nor /225/
the cold bath, have done much good: neither
has arsenic. Milk diet has often failed.
Liquid Laudanum given just before the
expected chill has done good. Dr. R. has done
service by it in a gentleman in this city.
The remedies Dr. R. would most recom=
=mend, are riding on horseback, salivation,
liquid laudanum, as above, and benesection
pro re nata. Intermitting Fever —
Dr. R. thinks the dumb ague, so called, does not
completely intermit; but only remits. There are
various forms of intermittent fever. The inter=
=mittent fever requires different treatment at the
beginning and end of the season. Quotidians ge=
=nerally come on in the morning; Tertians about
noon; and Quartans in the evening. The chills
are shortest in the quotidian. Where intermit=
=tent fever appears in the form of inflammatory
fever, Vsection should be used in the paroxysm,
according to circumstances. With bloodletting
we should combine purges, sudorifics, and
blisters until the paroxysm subsides. In remal
intermittents it has been customary to wait
for a few paroxysms, under the idea of

throwing off morbific matter which was [227] supposed to accumulate during the winter. King James, being under this impression, used to say "an intermittent in the spring "Was a disease for a king!" But we should repudiate such practice. There is nothing at which the system revolts so much as Bark, when there is the least inflammatory diathesis present. Half a pint of wine, taken just before an expected paroxysm of intermittent fever, has prevented it; as have a teaspoonful of pepper in vinegar, a ride on horseback, dancing, &c. All these remedies put off a fit, by acting on predisposing debility. Dr. R. says put off; for they seldom completely cure. The cure is to be performed by tonics. The Tourniquet applied about 10 minutes on the thigh, or arm, has often cured Int. fever. Emetics used to be given before the Bark; but they are very disagreeable, and sometimes dangerous— Purges are better. The Bark is the best remedy for intermittent fever. We should not give Huxham's Tincture a long time at once; as it gives a love for spirituous liquors—

It is best in substance, or infusion. When [229] children and others cannot take it internally, Bark-jackets, and clysters of the infusion, com=
=bined with laudanum, may be used. In cases of visceral obstructions, and in inflammatory intermittents, bloodletting, and purges, should precede the use of the bark. In weak, irri=
=table habits, the infusion of Bark will sometimes cure when the substance will not. Where the excitability is nearly ex=
=hausted, large doses of the Bark should be given, combined with cloves, vegetable alkali, or some such medicine. Where the Bark seems to have no good effect, we should suspect its quality, and get other bark. Blisters to the wrists and ankles, are very good in chronic intermittents; especially where bleeding is not indicated. When Intermittents ap=
=pear in the form of a periodical pain in the jaw, we should suspect a decay=
=ed tooth; and if found, it should be ex=
=tracted. Intermittents appear sometimes

in the form of periodical vomiting; [231]
periodical headache; periodical dropsy &c.
In one case of this last mentioned form,
it was a kind of suffocated sweat, in
consequence of excessive action. Some=
=times Intermittents appear only in a
part of the body: A gentleman had
regular chills and fever in one arm.
Intermittent fever, when long continued,
causes congestions, consumption, &c.—
Enlargement of the spleen, &c. are cured
by Bark, steel, &c. Large legs, [not swelled
legs strictly speaking,] are caused by inter
=mittent fever. When every remedy fails,
change of climate must be tried. The
best remedy for Febricula, is venæsection,
pro re natâ, and blisters.

January 11th. Lecture 54th. All diseases
are said to have intermissions, or remissions.
Fevers, certainly for the most part, have.
Dr. R. believes there is no fever but what
has remissions. The yellow Fever in all
its varied forms, generally terminates

on tertian days; as the 3d., 5th., or 7th., [233]
days. Critical days are all odd days,
except the 20th.. In long protracted In=
=termittents, the critical days are those on
which the disease exerts greatest force; and
on those days we should use the most
powerful evacuating remedies. On the days
not critical, is the time to give tonics.
An attention to critical days will much
assist us in forming a prognosis. Fevers
in August, in Philadelphia, generally
terminate on the 3d. day: In September,
on the 5th. day; and later in the season,
on the 7th. and later days. Lunar in=
=fluence should also be attended to. Ex=
=citing causes should be avoided, at the
full and change of the moon. Signs
of the Issue, or termination of Disease;
otherwise called Prognosis:— In general
Fever. We may judge of the danger, &c.
from the suddenness with which the

disease was induced,- from the force of the remote, predisposing, and exciting causes. Absence of chill on the first attack of disease, is an unfavorable symptom; but if after a bleeding or purge, a chill occur, it is a good sign,- or a chill occurring in the latter stage of disease is favorable. A patient saying he is <u>too well</u>, is a bad sign. Absence of pain is a bad sign. Great weakness in the beginning of fever is not unfavorable. Occurrence of pain after bleeding is a good sign; it shows that the system reacts. Great pain is not unfavorable, unless it be long continued, and in vital parts- then it expends excitability, and deranges the system: But great pain in yellow fever was a favorable sign. <u>Partial</u> warmth and coldness is unfavorable; as a hot breath, head, &c. with cold extremeties. Great <u>heat</u> in the <u>bowels</u> is bad. Great <u>thirst</u> is a bad symptom. A <u>dry tongue</u> is also bad; and a return of

:ally fatal, except in children. The patient lay- /239/
:ing on his side is a good sign. Voluntary stools and crepitus after involuntary stools and stillicidium are very good symptoms. A regular natural stool at an hour at which the patient has been accustomed to have one when in health, is always a sign of returning health. Gravelly matter ad-:hering to the side of the chamberpot, in fe-:ver, is favorable; In gravel, it always falls to the bottom. Partial sweats, a-:bout the neck, &c. are unfavorable. A sweat, or moist skin, or mador, is fa-:vorable; especially in Typhus fever. A return of old enquiries and conversa-:tion, in fevers, is a favorable sign.

January 12th. Secture 55th. Bilious state of fever. See Clyhorn on the diseases of Minorca. This state of fever is induced by the same causes as Yellow fever. Remedies - Venasection according to the pulse. When fever remits, or intermits, give bark; but if the stomach reject

it, give it by injection with Laudanum. [241]
Nitre does not generally agree with the stom=
=ach. A pure dry air is good. There is a
grade between the mild bilious fever and
yellow fever, which Dr. R. calls inflam=
=matory bilious fever: here venesection, two
or three times, is often necessary; but
in the mild bilious fever it is often
unnecessary to bleed at all, and sel=
=dom more than once. Yellow Fever.
In 1797 there were cases of hydrocephalic
state of fever among children, about
the beginning of the year. In February
some cases of catarrhal fever occurred.
In april there was a case or two of
fever remote from the wharves, which
were yellow fever. A great many names
were given to this fever. A Lady proposed
to call it the "Lying fever"; on account of
the number of false stories about it!
In 1798 there were many cases of natural
tongue, natural urine, &c. attended
with black vomit, and followed by death.

Beware of natural appearances in ma=
=lignant fevers. A morbid wakefulness
attended the disease, in Dr. Leib. A dis=
=charge of matter from the ear, relieved
a Mr. Warren of a distressing pulsation
in his head. Exciting causes—vomiting
from eating mushrooms, has caused it.
Sleeping under too few bed clothes, when
the nights became cold. The slightest ir=
=regularity would induce it, when the
predisposition was so great. The body
in common times, may be considered
as hardy as a beer bottle; but during
malignant Epidemics it is as delicate
as a Florence flask!—In some cases
the yellow fever assumed a typhous
form, and was prostrated to near the
30th. day; and then terminated in black
vomit,—and sometimes in health. It was
still yellow fever; though Nosologists would
say it could not be, because it was so
much protracted. The yellow fever terminated

in death with various symptoms; as great pain, sleep, &c. The stomach was found inflamed in many cases, on examination after death. The gall-bladder was found full - the liver sometimes inflamed, &c. The stomach was sometimes most inflamed, when there had been no vomiting. Similar to this, we see in Inflammation of the lungs, in the beginning and end there is a bad cough, but during the height of the inflammation there is no cough. Just so with respect to vomiting. The origin of Yellow fever is domestic. Method of Cure - Venæsection was almost always called for; except when the system was prostrated below the point of reaction. Salivation was effectual. Dr. R. did not lose a single patient who was salivated: But it was often difficult to excite. Salivation acted by equalizing excitability and excitement. Salivation was discovered to be kept up longer

than was wished, in one instance, by a carious tooth. Dr. Physick discovered this, and it was cured by extraction. Juleps of Salt of Tartar and Laudanum often checked distressing vomiting; as did drinks of Limewater and new milk, of each equal parts. Absence of pain was a bad sign; as was a loss of the sense of delicacy. You may as well consult old Almanacs for a knowledge of the weather, as the histories of Epidemics for a knowledge of those which occur. No two are ever alike; neither in symptoms, nor in the treatment they require. Indeed, former histories are apt to mislead, and do mischief. Dr. R. lost but two patients when called the first day; and saved but two when called later, except where depletion had been used.

January 13th. Lecture 56th. In the year 1799 the Epidemic appeared in Philadelphia about the middle of august. The arterial system in

most cases was active. In children there [249]
was great determination to the brain. It ap=
=peared in one case in the form of a dysentery.
The stiffness which usually succeeds death,
in one or more cases preceded death. This
has been observed in the Plague. The remedies
were chiefly Bleeding, purges, vomits, sweats,
blisters, and a salivation. Venesection was
generally called for, whether the disease ap=
=peared in the bowels, or elsewhere. Where
the system was depressed below the point
of reaction, the cure was first attempted by
sweating. To effect this, the patient was
wrapped in blankets wrung out of hot
vinegar and water. There were often but
two or three paroxysms; and sometimes
but one: Here a salivation was out of
the question, because the disease termi=
=nated before it could be effected — hence
the fallacy of trusting to it alone; or to
any one remedy. The body, when laboring
under Yellow fever, is like a cloud charged

with Electricity passing over a town. If there are many lightning rods, it passes off silently and harmlessly - so if we use a number of evacuants, the system is relieved without suffering any destructive shock. We should draw off the disease by the veins, stomach, pores, bowels, &c. Blisters to the stomach check distressing vomiting. Dr. R. was accused of bleeding his patients to excess; but redness of the eyes, and face must be removed; not only in Yellow fever, but in every inflammatory disease, before the patient can properly recover. A Ship depicted on the face is, with the Importers, a pathognomonic symptom! Dr. R. intirely disapproves of Hospitals for patients. They are the graves of men. Private houses are much preferable. Dr. R. noted down his opinions respecting the fever early one summer, from the appearances, at that time, of diseases and of the products of nature, &c. He was not disappointed. This

shews that we may, by attention to premo- /253/
-nitory signs, foretell epidemics. We can never
do this, if they are imported: And 10 years ex-
-perience has proved that it cannot be kept
out of our cities, if imported. Dr. R. believes
the time will come, when we can foretell
the appearance of pestilence with as much
certainty, as we can now the appearance
of comets, and the eclipse of the moon. The
yellow fever assumed every form, from the
most malignant yellow fever to Febricula.
This should lead us to not think lightly of any
bilious fever, during epidemic yellow fever;
for yellow fever often terminated in febricula,
and vice versa. In 1803 the disease was not
so violent; for there were no glandular swellings.
The blood was what is called dense, or unsepa-
-rated. There was no dissolved blood. There was
one natural tongue; which was a fatal case.
In many cases the diseased tongue continued
after a crisis, or during convalescence. This should
teach us not to be alarmed at the appearance
of the tongue, during convalescence. Dr. R. used
sweating by infusion of Eupatorium, two drachms

Zij to half a pint of water; assisted by copious /253/
draughts of warm diluting drinks. He used blis=
=ters before the system was reduced to the blistering
point; with the view to derive morbid action
to the wrists. It was a kind of salivation at
the wrists; and succeeded well. He did not
salivate. It was not necessary; and we
should never load a cannon to kill a fly!
Salivation is often necessary; but should nev=
=er be resorted to unless it be. We should use
it, but never choose it. Dr. R. cured a case
of black vomit in a Lady - He checked the
vomiting by Lime-water and milk; given
per orem et per anum. The fever was con=
=tagious in no one instance; and yet was
said to be imported!

January 14th. Lecture 57th. Jail, Ship,
camp, or Hospital Fever - Inguinal swel=
=lings occur in this fever, which are apt to
be mistaken for venereal buboes; but they are
to be cured by Bark & wine. Mercury failed
in curing them during the revolutionary war;
and bark and wine succeeded. Dr. Blane says
that the disease disappeared in Seamen, as
they approached the warm latitudes. It exists

only in cold seasons and climates. Those [257]
who have not the disease, may commu-
-nicate it, sometimes. It lays dormant
in such persons. A man has been known
who was not affected by poison-vine; yet
he always communicated the poison to his
wife, when he had been handling it. The
jail fever is communicated by a conta-
-gion of excretion. Even the Yellow fever
may be propagated by confining the pa-
-tient in a small, close, warm room -
here the excretions undergo an additional
putrefactive process, and act just like
other miasmata. Dr. R. has no doubt but
if the shirt of a healthy hard-laboring
man were confined in a close bag for
a month, it would excite disease. Going
into a room where there are confined
excretions, will not, however, excite dis-
-ease, unless the body be previously im-
-pregnated with miasmata. It only acts
as an exciting cause; and any other smell,
equally penetrating, would do as much.

*: Note, I have seen this state of hydropho=
=bia perfectly illustrated in Cynanche
Trachealis: The child had such hurried
respiration, it could not drink. Wm D.

It has been asked why yellow fever is not [259]
produced every year? We may also ask why
malignant sore throat does not appear ev=
=ery year? The same may be asked of dysen=
=tery. Our commerce has been much em=
=barrassed by a belief in the contagious na=
=ture of yellow fever. A belief in its con=
=tagious nature has caused many people
to be left to die, unattended by clergy,
friends, or relatives. — Fever from Opium.
The remedies are, venesection, emetics, &c.
Vomiting may be induced by a feather thrust
down the œsophagus, after white vitriol, &c
have been tried in vain. Fever from the
Bite of Rabid Animals - See Medical Repository,
where Dr Physick recommends laryngotomy.
In Hydrophobia, the patient dreads suffo=
=cation from drinking. In a fever more air
is required by the patient, than in health,
and in such a malignant fever as this,
more air is required than in common fever.
So that even suspending the breath dur=
=ing drinking may prove fatal.* It

appears to be a disease of inirritability. [261]
It has been cured, occasionally, by tonics; and
also by venaesection and mercurial purges?
These remedies are to be used pro re nata;
and with the addition of laryngotomy,
may cause the disease to be less fatal;
perhaps to cease to be fatal. Those re=
=medies proposed for preventing hydro=
=phobia, have derived most of their cre=
=dit from having been used when the
disease would not have occurred. Ex=
=cision of the part bitten, may be use=
=ful for some time after the bite.
We may know if a dog be mad,
by his not barking when he bites.
If he bark, we may be sure he is
not rabid.

January 16th. Lecture 50th. Sweating
state of fever - occurs in hectic fever, small
pox, &c. It is relieved by sitting up in bed,
and venaesection. Even in the typhoid state
of fever, small bleedings have relieved the
sweating. Burning state of fever - causes

calor mordens. The blood in running down the arm sometimes causes a sense of great heat. These forms, with some others, are symptoms of the other original forms of fever. Intestinal states of fever. These exist in the forms of Dysentery, diarrhœa, cholera morbus, and colic. They are all introverted fevers; determined to the bowels. Diarrhœa is easily cured by purges; venæsection pro re nata, clysters, opiates, &c. Dysentery sometimes comes on with a lax; but is often preceded by costiveness. This shows great violence of disease: just as in malignant bilious fever there is a suppression of bile. A discharge of bile in the beginning of bilious fever, is a good sign: So a dysentery ushered in with a lax is most favorable. There is a membrane discharged sometimes, which is analogous to that of the trachea, in Cynanche trachealis. Sometimes the patient is very weak - at other times walks about until near

death. There is a mild chronic dysentery, cal-
-led by Dr. R. Dysentericula. Dissections show
inflammatory affections of the bowels, ulcers, &c.
but the disease sometimes has transcended
inflammation. It sometimes appears in the
form of an intermittent. It prevails on the
hills while Intermitting and Remitting
fevers prevail on low marshy grounds; the
reason of which is, the cold on the hills
is greater in the evenings, and determines
the disease to the bowels. Local cold has
caused dysentery in one part of a city
while bilious fever existed in another part.
This shows them to be children of the
same parent. What becomes of Nosology
now? In the forming stage of dysentery,
it may be generally cured with great
ease by a gentle purge. It was prevented
in a company of Soldiers, during the late
war, by causing them to drink sea-water,
which purged them. Where the system is
depressed below the point of reaction, all de-
-pleting remedies are forbidden - even the
gentlest purge has been fatal, in Vienna.
Dr. R. never saw such a case; but has no
doubt there have been such cases.

Here Laudanum, Wine, and other cordials, [267]
should be given; also cordial clysters. But
where the system is not depressed, venesection,
pro re nata, purges every day, or every second
day, of castor or other oils, should be used. Oils
have a kind of sedative effect, as well as ca-
-thartic. Rhubarb and Calomel have been recom-
-mended; and should be tried where the others
fail. Senna, neutral salts, &c. are also useful.
Where the disease shows a disposition to
sweating, it should be favored and promoted;
but otherwise it is not a safe remedy. A
julep of Chalk, Salt of Tartar, and gum arabic,
with q.s. of Laudanum, is useful. If opiates
are given too early, they increase pain. When
the disease assumes a periodical form, use the
Bark, with Laudanum. Remember that
Dysenteries are not to be regulated, in their
treatment, by what was necessary or suc-
-cessful in former years. They change every
year. One year the disease has been cured
by purges - another year it was only to be
cured by venesection - &c. Preventatives
taken in excess, may induce the disease,
or a predisposition to it. When the

patient is very weak, he should not get [269]
up to the close stool - he should have old
clothes, or soft leather, laid under him. Where
the pain is severe in the rectum, a pledget
of tow, or cotton, well dipped in sweet oil and
laudanum, and applied to it, will sometimes
ease like a charm. Fetid stools are a sign
of returning health; and until they do appear,
in dysentery, we need not expect a favorable
progress. Always enquire on this subject.
Is Dysentery contagious? Authors are divided
in opinion: but Dr. R. believes it is spread
both by contagion and the state of the
atmosphere. But it is the contagion
of exertion. It never did, nor never will
spread by specific contagion. Cholera
Morbus - After proper depletion, use cordi=
=als. Dr. R. has bled in this disease, where
the pulse was imperceptible. Bilious Colic
is always preceded by a chill - cured by
venesection, warm bath, & salivation. -
January 17th. Lecture 59th. Signs of the
State of atmosphere favoring malignant Epidemics -

External signs - Winds coming from unusual quarters; During our Epidemics, the winds came from the S. W. more than usual - Death of animals; as pigeons, cats, &c. - Disappearance of house-flies - Fall of the leaf - &c. Signs of its presence in the human body; or a disposition to it - Stopping of an old running sore - accelerated pulse - sense of burning in the mouth on taking wine into it - smell of hepar sulphuris on rubbing the hands. Means of preventing individuals from taking the epidemic - flight to healthy situations - or if that be not practicable, gentle evacuations; spare diet, simple and small in quantity - A little salt meat, or cayenne pepper, serves to stimulate the stomach, and prevent debility from defect of accustomed aliment - Sometimes a moderate glass of wine - gentle laxatives - also a diaphoresis - this is of such consequence that at grand Cairo, during the plague, Volney says the customary salutation was "Do you sweat well?" Gentle Venesection - this gives a vibratility

to the system which makes it bend to the [273] disease - thus the pliant willow bends to the storm, and afterwards rises uninjured; while the stubborn oak is torn up by the roots. Washing the body with salt water - bathing the body with sweet oil - Watermen escape the plague. Dr. Hodges escaped the plague in London, by keeping an issue running on his leg. Dr. Gallagher kept up a perpetual blister on his arm. It has been observed that ulcers discharge more largely during Epidemics, than at other times. People have escaped epidemics by exciting general action paramount to that of the miasma - the use of onions, &c. - A person escaped an Epidemic by keeping his gums a little sore with mercury - like an electric rod, it conducted the miasma out of the system. Camphor-bags round the neck, tobacco, &c. do not prevent it - Dr R. thinks they may, in their odors, entangle and carry in more of the miasma. Taking sweet oil in the morning has prevented it - Two drunkards, who were constantly intoxicated, escaped it - Grave-diggers, and others who were much among fresh earth, escaped - Fable of Antæus - Being void of fear, is no protection against epidemics; for hundreds have died of yellow fever who

had no idea of fear. Could I be heard, says Dr. R., from the waters of St. Croix to the Missis-sippi, I would not say beware of contagion, nor of exhalations, when friends are sick, and require attention, – but, beware of Exciting Causes! We should bend to the Epidemic Storm, and suffer it to pass, harmless, over our heads. Several Students at Leyden, who drank Wine, escaped an Epidemic; but one of the company drank nothing but water; and he had the disease. Perspiration should be kept up by warm dress. Avoid morning dew, and evening air. Make fires in cool mornings and evenings – keep the bowels laxative. In order to avoid Dysentery, when exposed to moist air, dress very warm. Means of preserving a Community – Cover putrid substances with earth – Quicklime is serviceable in correcting putrid exhalations; especially in necessaries, &c. How far it may be use-ful in correcting putrid docks, &c. future experiments must determine. The gas escaping from fermenting liquors once checked an epidemic in Germany. Mr. de Morveau proposes Muriatic acid

gas, to correct exhalations: but how would we correct the atmosphere of a whole city, or country? Mr. Howard recommends to keep windows shut. An old author, [Hodges? or Morton?] disapproves of fires. He says that once when they were made in London, during the plague, heaven wept for the folly of the people, and kindly put them out with showers of rain! — Methods of exterminating Epidemics — Remove all filth. London has not been visited since the use of Coals — or since the fire, which destroyed the wooden buildings; which were a source of plague. They were to London, what water-street is to Philadelphia. Marshy countries may be rendered solid and healthy, by sowing them with grasses, — especially the herd-grass. Quarantine Laws are of no use, except in preventing the putrid air of a ship's hold from being brought to a port; and it could be as well ventilated in one day, as in a month.

January 18th. Lecture 60th. We have now finished the summer and autumnal diseases. We proceed to consider those which are not particularly connected with the seasons. Pneumonia Vera — When this disease has

once attacked a person, he is liable to [279] it as long as he lives, afterwards. The lungs are left in a debilitated state. Dr. R. once attended a person in the 24th. attack of pneumony. Remedies - venæsection - purges of Calomel and neutral Salts - Blisters immediately after bleeding. They should be applied as early as possible; for they do not stimulate the whole system much, and their great good effects much overbalance that evil. Where blisters are objected to, we may use cupping on the breast, or side. Demulcents are very proper. Barley-water is made agreeable by boiling a raw apple in it; or squeezing limejuice in it. Pneumonia Notha, or apoplexy of the Lungs - occurs most frequently in the night - drunkards are subject to it; for their lungs are so debilitated that they cannot react. It often kills in a day or two. It is a symptom of gout, yellow fever, &c. Cured by venæsection pro re nata, and other remedies calculated to relieve the lungs. Inhaling steam will often afford speedy relief; & Dr. R. has made steam in an expeditious way, by heating the fire shovel, and plunging it into water, for the patient to inhale. -

Pneumonia Biliosa - here copious ve- [201]
-nasection is necessary; for there are two
actions to subdue - that of the thorax, and
of the liver. Next purges, &c. are to be used.
In some cases the pulse is soft, and the
system will not react - Here, and when
the pulse sinks after bleeding, Cordials must
be resorted to. Virginia snakeroot is very useful
in such cases. Catarrh - Dr. R. believes it may
be occasionally contagious, just like malignant
fever, or pulmonary consumption: But it is spread
by the Atmosphere. Sometimes it affects whole
countries. It is very common in variable cli-
-mates, and among civilized people. Savages are
not so subject to it. In the forming stage, diluting
drinks, and abstinence from cordial drinks and
diet, will generally remove it. This disease being
one cause of Consumption, should never be ne-
-glected. When the disease is formed, venasection,
Cathartics, diaphoretics, &c. must be used. A bad
cold, though little regarded by most people, is nev-
-er unattended with danger. Dr. Turner, of London,
used to ask "What is death itself, but a great cold?" -
Consumption, or Chronic Pneumony - We
have chronic Rheumatism; and why not Chronic

pneumony? The Lungs are a hardy viscus. Hem/283/
=orrhagies from the lungs, in the early stage of consumption, are favorable. They are local bleedings; and if cured by proper venesection, &c. the disease goes off. If the disease be not relieved in this way, or by expectoration, Tubercles, or abscesses, will be formed. Tuber=
=cles are formed in the Bronchial vessels;- Abscesses are formed in the Bloodvessels. They are both the effects of disease in the Bloodvessels. Why should not those disorders, or effects of disease, be found in the Lungs, as well as in other parts? Nature observes her uniformity here, as well as elsewhere. Consumption is a family disease, as well as heriditary: several children have died of it, whose Ancestors had no disposition to it. In Britain the debilitating causes of civil=
=ized life produce a great many cases of consumption; and those causes are increas=
=ing in the United States. Formerly, those cases which appeared in the form of violent pneu=
=mony, now come on insidiously, in the form of Catarrh, and slow fever; disorgan=
=izing the lungs, and doing irreparable

mischief, before medical aid is called in. /205/
Dr. R. has known many cures by removal to the Carolinas - but none, scarcely, by a removal further south; as for instance, to the West-Indies. Night sweats, chills, purulent expectoration, &c. are not essential symptoms of consumption; no more than Snow is a pathognomonic sign of the month of January! Remedies - Bloodletting pro re nata. Nosologists cannot prescribe until night sweats, and pus from the lungs, appear: But we should take the disease earlier, - while it may be managed and conquered. Mercury fails very frequently in procuring salivation. It is a desideratum to find a preparation of Mercury which will speedily salivate. Elizabeth Davis, a patient whom Dr. R. cured last winter, expectorated pus largely, had a diarrhoea, &c. He cured her by Laudanum, cordial diet, &c. She is now perfectly well. Diarrhoea is to be checked by chalk julep, and Laudanum. He cured a Lady this winter, by keeping her spitting two weeks, after proper venesection had been used; and then putting her on a course of tonics. —

January 19th. Lecture 61st. Issues are [287]
useful in Consumption; especially when
it has been induced by a repelled eruption.
Digitalis is not very effectual. Dr. R. has
laid it aside. Large draughts of the juice of the
sugar maple, are said to have cured it. Sweet
apples have been useful - they have cured a
broken-winded horse. Inhaling the fumes of
rosin - A man who melted rosin on the
corks of bottles, and inhaled the fumes of
it, was cured of a consumption, it is said;
but Dr. R. has never known any thing but
temporary relief, or palliation, from the
practice. The hardships of a Camp, a Sea
life, have cured it. The peruvian bark has
been used; but Dr. R. has never know the bark
to do any good. It can never be proper when
there is preternatural excitement; which is
generally the case. Consumption sometimes
terminates by a supervening pneumony -
in a swelled leg, and thigh - in great pain,
and spasms of the limbs - and lastly, and
commonly, in diarrhoea. When Consumption
is hereditary, it is generally fatal - also
in gouty persons, and when calculi are

expectorated. Some have recovered after spit-
ting a thick, well digested pus; but few or
none recover, who spit a thin matter, with
lumps of pus floating in it. Falling off
of the hair, and a disposition to be lousy,
are bad symptoms. Spitting blood, in the
forming stage, is favorable; but when
abscesses are formed, or ulcers exist, it is
very bad, for obvious reasons. Vomiting much
is bad. Prophylaxis - Bark - but it must nev-
-er be used when there is the least morbid
action in the system. We must take it only
when we are free from disease. Dr. R. has taken
much of it, in this way, to advantage. A
journey every year or two is useful as a
preventative. Eruptive state of fever - The
small pox, ere long, will only heard of in old
books, or from old physicians. It will be ex-
-terminated by the variola vaccina. It has
many advantages over small pox. See Coxe and
Aiken. Dr. R. recited the following couplet to the
class, which probably was composed by himself!

Let the solitary farmer venerate the plough-
But let the whole human race venerate the COW!

Measles - in the fall of the year, have been compelled to wear the livery of Bilious fever. They have been attended with cholera morbus, dysentery, &c. - which are symptoms intirely foreign to measles. Many persons who have had measles, have nevertheless a morbillous cough, whenever they are epidemic. There is scarcely any disease which has sign deserving the name of pathognomonic. Remedies for measles - Bloodletting - vegetable diet - demulcents - opium and astringents, where a diarrhoea exists that may be safely checked. Erysipelatous state of Fever - affects those most readily who have once had it - Affects the breasts of females, &c. All oily and saturnine repellents should be carefully avoided. The proper remedies, are venasection, purges, blisters on the part affected, &c. Pemphigus seldom occurs - & a purge generally cures it. Anginose state of Fever - Angina maligna is said, by Webster, to be evanescent plague. For a description of it, consult Dr. Cullen. It generally kills in 3 or 5 days. It would seem as if malignant diseases all terminated in 3, 5, or 7 days. In the forming stage, use Emetics, &c. But when the disease

is formed, bleeding ex rei necessitate. Dr. [293]
Redman lost a patient in this disease, by o=
=mitting venesection, at the request of the fam=
=ily. He often lamented being governed by the
family. Bark, mercury, and Blisters, are
proper. Bark does good here, because the
disease is centrifugal - the bark increases
the centrifugal action. Diaphoretics are good.
Fumes, inhaled from myrrh in hot vinegar,
through an inverted funnel, are useful.
The nails and skin peel off during con=
=valescence. Cynanche scarlatina is
generally attended with ulcers; but Syden=
=ham records a case without them, - and
Dr. R. has seen such a case. This is an
atmospheric disease; but may be ex=
=cited by the contagion of excretion, when
there is a predisposition to it. The skin
has peeled off, in a girl, from the hand,
like a glove. Remedies - venesection, fumi=
=gation, &c. Angina suffocativa - is some=
=times attended with an eruption behind
the ears. See Tissot's avis au peuple. Dr. R.
has cured it by the treatment recommend=
=ed there. Dr. R. relieved a patient who appeared
to be dying, by exciting sneezing with coarse

snuff. It procured a discharge from the nose, and did much service. 

January 20th Lecture 62nd. A patient in pneumonia vera who was bled in both arms at once, had sizy blood in one arm, and blood rather beyond it, in the other. This shews there may be partial disease, even in the bloodvessels. In Scarlatina anginosa the patient becomes sometimes anasarcous - to be treated like dropsy. Some people have a **Cough** for many years without impaired health. It is sometimes troublesome only by day - at others, only by night. When it is worse at night, it is the worst kind. The remedies are venaesection, pectoral mixtures, and Laudanum. The cough must be allayed, at night; for sitting up in bed to cough is dangerous - it will induce a consumption, by the patient taking cold. A syrup made of Horse-radish is good in the Tussis senilis. Oil of amber is good in a spasmodic cough. A draught of very cold water is good for a cough. A teaspoonfull of Mustard in molasses has stopped an obstinate cough, in the Influenza. We

should keep those remedies in our own hands; for the old women do much mis=chief with them. Cynanche Trachealis- it was epidemic when Gen. Washington died of it. It sometimes comes on suddenly, but more commonly gradually. There are 4 appearances in the trachea on dissection in this disease- 1. No appearance of disease at all; owing to excessive, or suffocated ac=tion; This is the spasmodic kind- 2. In=flammation- 3. Mucus- and 4. a membrane, caused by inflammatory exsudation- it is the effect, and not the cause of the disease. Remedies- Dr. Dick bleeds ad delig=quium animi- Large doses of Calomel to purge smartly- Cataplasms of mustard to the throat, &c. Prophylaxis- An emetic given in the forming stage is almost a certain remedy- Cynanche parotidea- When the throat begins to swell, a blister to it will relieve. Cynanche Tonsillaris- puncture of the tonsils, when the sup=puration is complete- purges- &c. Laughing has ruptured the abscess- witness Radcliffe's story of the mush! Cephalic States of Fever- The apoplectic state of

Fever affects the whole brain. All the different states are owing to one proximate cause, affecting different parts of the Brain;- As dysentery sometimes ends in dysenteriecula - as pneumonicula is protracted pneumony - so Mania is protracted phrenitis, - or, it is phreniecula - In phrenitis, the remedies are first copious venesection; especially if it is induced by blows. In typhus and typhoid phrenitis, Bark and wine: they induce bark & wine actions, which surmount the typhoid action. Apoplectic state of fever - Bloodletting, Cathartics which distend the bowels, Vomits, when the stomach is disordered - When the system is too low to react, use stimulants. Paralytic state of fever, is less common; but is sometimes epidemic, - or rather, is an epidemic fever determined to the brain: and why not to the brain, as well as to other parts of the body? And if to the brain, why not appear in those different forms? Mania has been epidemic. Phreniecula, or Hydrocephalic state of fever, has been caused sometimes by falling on the feet - is sometimes epidemic - but it is only epidemic fever determined to

the brain. Worms are said to counterfeit the disease; and Dr. R. has no doubt but they may occasionally cause the disease,- and if removed early, the disease may be prevented. But when the habits of wrong action are fixed, the discharge of worms will not cure it, as Dr. R. has seen. Hence we see the error of the old maxim, "sublatâ causâ, tollitur effectus". Dr. R. has succeeded in curing this disease, after strabismus and convulsions had come on. Bloodletting- If the pulse will bear it, go on bleeding in any stage; for Dr. R. has cured by it, after effusion, &c. — Blisters to the head are useful- vermifuges; but avoid the pink-root,- it determines to the head. Never salivate children for it, under eight years of age. Eight children have died in Philadelphia, of mortification from salivation- avoid the practice- To the Lancet! Gentlemen; to the Lancet!! —

January 21st. Lecture 63rd. Diabetes is a form of fever,- attended with palpitation of the heart, and loss of venereal appetite, sometimes. Secretions may become vicarious, as when the urine is suppressed, we sometimes find it secreted by the stomach,

When sugar is secreted in the urine, &c. it may be said to be owing to a saccharine diathesis. Remedies- venasection- the blood is generally sizy- Dr. R. in a recent case would recommend, after venasection, Emetics, Cathartics, &c. and then tonics. Darwin recommends alum, to be decomposed in the bowels by means of fixed alkalis. It is said to have been cured by Dover's powders. Remember that there is a great difference between debility which has been induced by depletion, and that which is a consequence of suffering the blood vessels to wear out their excitability: In this latter case, stimuli have nothing to act on; but in the former, we have a treasure of Excitability left to work upon. Hydropic state of fever- Water is the product of diseased action. The results of effusions are different according to the force of the morbid action, and the part in which they are effused. In Engorgements of the viscera, serum, lymph, and red globules, are all thrown into error loci. In petechiæ, and ophthalmia, red globules are effused. In dropsy, water or serum is effused. Except in cases of

rupture of the lymphatics, there can be [305]
no dropsy without excessive or morbid action
of the Bloodvessels. Remedies- Venasection, ac-
-cording to the pulse- Dr. R. bleeds in dropsy
of every part of the body, when it is attended
with a full and tense pulse. Next, drastic
purges; as gamboge, scammony, jalap, &c. &c.
These should not be used in dropsy of weak
morbid action- In this kind, aromatics, ju-
-niper berries, scurvy-grass, and the like-
bitters of all kinds- warm and cold bath, &c.
Hydrothorax- The outlets, in hydrothorax,
should be tried through the kidneys first-
Dr. Smith was saved two years, by two grains
of squills with one of calomel, taken occa-
-sionally (?)- Purges are not worth much- Who
purges in diseases of the breast; except mo-
-ly to keep the bowels open? A perpetual
blister to the side has been of great service.
Ascites- affects women more than men-
single women most- tall men more than
short. Remedies- Bloodletting, where the
pulse is tense, especially where the legs are
swelled; for after bleeding, the swellings will

often soon decrease. The relaxation of the [307] bloodvessels favors the action of the absorbents. Drastic purges are not safe in old obstructions of the viscera. Nitre has been of service, but only in cases where the pulse was tense. In atonic dropsy we must use remedies the reverse of these; as cordials, aromatic stimulants, &c. Tapping is tried when all these fail; and may succeed in recent cases; but in old cases, Dr. R. prefers Mr. Hunter's recommendation, to leave the water in, to support life by the stimulus of distension. People have lived many years, tolerably comfortable, with water in the abdomen. A salivation may be tried, and tonics afterwards, to prevent accumulation again.—

January 24th. Lecture 64th. Rheumatic state of fever, is caused by sudden transitions from cold to heat, &c. It sometimes appears in the form of dysentery. Dysentery is then Rheumatism of the bowels. It sometimes attacks the eyes, &c. but most commonly the joints. Remedies- general & local.

Venesection, purges of neutral salts, &c. blisters, mercury, dover's powder,- but this should not be used until the pulse is reduced. Friction - this may not be proper in the inflammatory stage, but at other times it is useful. Foundering is caused in Horses, by sudden exposure to cold after being heated, as well as by excessive eating. A tourniquet applied on a limb has relieved rheumatism. In Rheumaticula, the pulse is synochula; and Dr. R. has succeeded in the cure by small and repeated bleedings, antimonial powders, &c. after the Tinct. Guaiac. and other stimuli had failed. Rheumaticula has been called chronic rheumatism; and unfortunately, treated as such:- but we should be aware of mistaking it for Rheumatalgia or the true chronic rheumatism. We should here, as in dropsy, attend always to the state of the pulse. Rheumaticula has often continued two or three years; yet the pulse, when it came to be treated, required venesection. The volatile tincture of guaiacum has, in such cases, done much mischief: As likewise has the Brunonian practice generally. Rheumatalgia is to be treated with blisters, friction, volatile tincture of guaiacum, flannel, &c. &c.-

Arthritic state of fever,- affects every part of the system- it is a disease of the blood-vessels, seated in the solids. Dr. R. has seen a fit of the gout in an Indian, who had lived intemperately. He was put on a low vegetable diet in order to prepare him for the small pox, when the debility induced thereby predisposed him to the gout, and he had a severe fit. The same occurred in an intemperate Indian at pittsburgh. Strong tea has caused gout; as we learn in Japan,- and hence one reason why women have gout more frequently than men: They drink more strong tea. Strong coffee has caused it- ardent spirits, and wines, are frequent causes of gout. In a gouty diathesis, Dr. R. has seen a strained ankle, or similar injury, induce the disease. Here the physician has been reproached for not being able to cure a simple strain; but the failure is owing to the above diathesis,- and we should not promise a speedy cure in such habits. The proximate cause of gout, is morbid excitement. How much consultation has there been, to know whether a disease were epidemic, intercurrent, or a fit of the gout! We often

hear of gout complicated with fever. There is [313] no such thing. There can but one diseased action exist in the bloodvessels at the same time. Dr. R. would as soon believe that a horse could trot, pace, and gallop, all at once! In nephritic gout, or gout fallen on the kidneys, there is an engorgement of the kidneys - a suppression of urine; but none will be drawn off by the catheter, because there is none in the bladder. Gout affects the liver, alimentary canal, and rectum, in particular. There has been such pain in this part, from gout, as to cause involuntary stools. It appears in the form of a diarrhoea, - called in the southern states, downward consumption. It affects the skin: its acute symptoms here, are petechiæ, &c. - its chronic symptoms are herpes, and ulcers, &c. - It sometimes affects the face, just below the eye; called by the French tic douloureux. Gout always finds out weak parts, and attacks them. During predisposition to gout, it may be easily prevented by gentle venesection; or if this be objected to, a gentle purge, pediluvium, &c. There is no danger from strangling a forming fit of the gout. When morbid

action comes on, use venaesection, &c - [315]
Debility is not a disease - it is only the predisposing cause. Disease is preternatural strength, abstracted from one part of the body, and accumulated in another. It is irregular and excessive excitement. There is no specific for the gout. Dr. R. only introduced the practice of bloodletting in gout, into this country. Lister bled. See his excellent treatise on gout. In vigorous constitutions, and in cases of great morbid excitement, (and in these only) cold water on the extremeties, or parts affected, relieves it. Blair M'Clenachan used this remedy with advantage. Gout has been eradicated by accidental hemorrhage. In the forming stage, one hundred drops of Laudanum have checked the disease. Prophylaxis - Temperate living; particularly in spring and autumn - Those who sweat freely, or urinate freely, are not so subject to gout.

January 25th. Lecture 65th. Hemorrhagic state of fever - is always preceded by arterial debility. Plethora is of two kinds, - plethora ad volumen, and plethora ad spatium - The

former, owing to an excessive formation, or [317] production, of blood; and the latter, to a diminution of the capacity of the bloodvessels, - as after amputation, or where the bloodvessels are compressed by excessive fat. It has been observed, that people after amputation become plethoric, and spit blood, often. Dr. R. denies the propriety of the term passive hemorrhagy, except in cases of idiosyncrasy, where slight wounds without fever cause hemorrhage. Here it is owing to defect of organization in the bloodvessels; and Dr. R. has relieved it by the Bark. Dr. R. divides hemorrhage, into that attended with strong, and with weak morbid action; which are to be distinguished by the pulse. It is caused by general and partial agents, - sudden changes from cold to heat, &c. - hence their more frequent occurrence in fall and spring; and in changes of the pressure of the atmosphere, &c. Hemorrhage is a symptom of fever - Like the road-post, it points out the way, but does not move itself: Therefore it indicates venesection, &c. cold is very good. The wounded deer always flies to a cold spring, and buries the wounded part in it. Epistaxis often occurs about

puberty: Caused sometimes by anger - for [319] instance in Mr. Bruce. When the pulse is tense, use venesection. Dr. R. knew one case to prove fatal, - attended with petechiæ, &c. Dr. Cullen recommended blisters. A handkerchief dipped in cold water, and applied to the scrotum, checked it, in a boy of 16 years. Ice may be ap:=plied to the back of the neck, scrotum, &c. [Where these fail, the acetite of Lead will often prove effectual.] - Hemoptysis - occurs from vi:=olent exercise, lifting weights, laughing loud, hollowing, coughing, blowing wind instruments of music to excess, &c. Where the discharge is pretty copious, it intirely removes the pre:=disposition to consumption: but the lungs are sometimes drowned in their own blood. Dr. R. generally alarms his patients, and gives remedies for the predisposition to phthisis. Vicarious hemoptysis is sel:=dom fatal, or succeeded by consumption. In chronic hemoptysis, the lungs have been found full of little polypi. Many persons have lived to an old age, after being afflicted with this alarming and dan:=gerous disease. Remedies - When the pulse is tense, copious venesection, - gentle purges - blisters to the neck - from 6 to 10 drops of British oil, 3 or 4 times a day, have cured it. Oil of amber might perhaps do the same, after the system has been properly reduced. After

this reduction, cordial diet and drinks [321] have cured it. Dr. Bond outlived it, by being bled whenever he felt a tightness, or fulness, at his breast. Dr. R. has done the same himself; with the additional use of bark. When the pulse is typhus, Bark is excellent. Hæmatemesis - is sometimes followed by hectic fever; and is then often fatal. Black, grumous blood is most favorable. Ice cream taken on an empty stomach has caused the disease. They are always dangerous; but most so when the stomach is empty. Sometimes a membrane is discharged from the stomach; supposed to be from the blood becoming membranous. Remedies - Cold water in small quantities - Tonics - Vsection is seldom necessary; for the discharge is generally sufficient. - Melæna is seldom cured; especially in old drunkards, in whom it most frequently appears. Hemorrhage from the Bowels - Salt has done good - astringents in injection - Cold water - sacch. Saturni - &c. Hemorrhage from the Uterus - Dr. R. checked it in a pregnant Lady, by covering the whole

pudendum with flour. Blisters to the [323]
thighs. Excessive Lochial discharge has been
cured by putting a child to the breast; &
by dry cupping. They acted by inducing
revulsive action. After bleeding in malig=
=nant fever, where the blood kept leaking
from the orifice, caustic applied to the
part, checked it.

January 26th. Lecture 66th. Hepatic state
of fever. In the scuttle fish, the Bile is cer=
=tainly an excretion; but in other animals, it
is a secretion. The bile is increased in quan=
=tity by anger, &c. the action, in such cases,
is increased, but it is not morbid. The
Vulture of Prometheus is a Hepatitis. Dr.
Darwin supposed Gout was caused by dis=
=eased Liver; but it is a mistake. The bile
is of different color and consistency, according
to the degree of action. The effects of excessive,
or morbid bile, are dysentery, cholera morbus,
cholic, pain in the rectum on going to stool, &c.
Hepatitis is divided into acute and chronic.
Premonitory signs of acute Hepatitis - uncom=
=mon dulness or sprightliness - tenderness on the
region of the liver - inability to sneeze, or lay

on the left side. The patient is often costive /325/ in this disease. Great bleedings are necessary to prevent suppuration. Dr. R. bled Miss Peters 38 times in 4 months; but did not prevent suppuration. Her liver gathered and opened, several times; but she recovered. Purges, clys=ters, blisters, caustics to the side, &c. must be used. The abscesses discharge into all the neighboring cavities. The matter discharged is a mixture of pus, bile, mucus & blood. We should attend to this; and predict that it will not be pure pus. When the abscess open into the abdomen, colon, peri=cardium, &c. it is necessarily fatal. Dr. Redman discharged the matter of an abscess through the Lungs, when about the age of 30 years; and is now above 80 years old, and healthy. When the pus discharges too suddenly, and in large quantities, the patient should be sustained by a little Laudanum, and other cordials. Dr. Redman had a pain in his side, after fatigue, &c. a long time after he was well; and yet he is alive — so that this case may be cited to console other patients who are affected in the same manner, after the disease has been subdued.

Diseases from disorders in the Liver - Those /327/ from gall-stones are most common; but sometimes they may lay there without causing disease; as was the case in Mrs. Robinson, and the Earl of Bath. When the disease is owing to spasm, use opium, cath=:artics, &c. When owing to gallstones, it is difficult to cure. Dr. R. relieved a Lady of the violent paroxysms, by bleeding: and after=:wards cured her, he thinks, by the Dandelion, (Leontodon Taraxacum). A gentleman said he cured himself, and others, by potash, castile soap and Brandy. Blisters - It is astonish=:ing what effect blisters have upon dis=:eases of the stomach and liver! They relieved Blair McGenachan, who discharged quarts of bile. His disease took a turn; and he now hobbles about with dumb gout, which he will perhaps never be cured of. Hemorrhoidal state of fever - Piles sometimes begin in other parts of the body - commonly at the rectum - it is a state of fever. The remedy is venesection; general and local. Dr. R. bled Mr. Adams's Coachman twelve times, and took 100 ounces of blood, and cured him. We should keep Strammonium

Ointment in our shops. It should be made when the plant is in flower; the leaves should be bruised, and mixed with lard, (and bees-wax in summer) simmered over a slow fire a day and a night,- then strain it, and it becomes a fine green ointment, which Dr. R. says is of a sedative nature. The piles, if not cured, will sometimes induce pulmonary complaints, &c. They should not be neglected. Remember that the more the diseased part is out of the circulation, the more blood must be drawn. Remember the Unity of dis=ease:- And while Nosological children count an hundred cents, with pride in their A=rithmetic, and pleased with the jingle,- re=member that you carry the same sum in the more simple and convenient form of a single dollar!

Jan$^{y}$ 27th. Lecture 67th. Ophthalmic State of Fever - is produced by the usual causes of fever; also by trichiasis, or turning in of the eyelashes. Sometimes inflammation of the eyes will appear after bloodletting, when there was none before that operation; in that case a repetition of it is necessary. Local bleedings are useful in this disease, as the eyes are so far out of the circulation; but where the system sympathizes with the local affection

general bleeding is proper. When the inflam= [331]
=mation is reduced, the infusion of oak bark makes a good collyrium. The young shoots of sassafras, broken and infused in water, makes a fine palliative mild remedy. When the disease is owing to venereal virus, mercury should be given. Washes of corrosive sublimate gen:=erally do harm in these ulcers. We should always attend to this state of fever; for it often ends in blindness, when neglected.— Odontalgic state of fever— That this is owing to inflammatory action Dr. R. infers from the teeth having arteries, which are the seat of Inflammation; also from its occurring in cases of sudden change from heat to cold, and vice versa. The Inhabitants of St. are the only West Indians who are subject to the toothache, and they are the only peo=ple of those islands who are in the habit of drinking cold water alone. Sometimes it is not safe to extract the tooth; & in such cases blisters may be applied behind the ears. When the gum swells, a roasted fig, opened, may be applied to the gum:— also Opium plasters, and mustard plasters, externally, to the cheek. Sometimes there is an abscess at the root of the tooth, and then the tooth

must be extracted: And in case of abscess in the upper jaw, if extraction do not open into the antrum, thrust a probe into it, and it will be relieved. Mr. Thomas had 7 or 8 teeth drawn before he was cured. In all chronic diseases we should have regard to the teeth. Epilepsy, obstructed menses, vertigo, &c. have been occasionally relieved by extracting unsound teeth. Good teeth, and handsome teeth, are almost synonymous terms. The teeth require exercise as well as other parts of the body. Women often injure their teeth by biting and pulling off the ends of threads, &c. Charcoal, and peruvian bark, well powdered, are good dentifrices.—Atalgic state of fever—may sometimes be relieved by the smoke of sugar, or burning coal, received into the ear through an inverted funnel; also the smoke of tobacco, &c. Aphthous state of fever—this is an effort of the system to relieve itself by evacuation. The remedies are blisters, gargles, &c.—Scrophulous state of fever—Dr. R. believes it to be a fever thrown on the Lymphatics—The remedies are Venesection, &c. In no disease must the remedies be more

frequently changed than in this; because [335]
the disease changes oftener than any
other. Some Physicians recommend very
opposite remedies,- because their Patients
have been in very opposite states. This
shows the truth of Dr. R's. theory; and the
necessity of attending to the state of the
system. Goitre is to be referred to scro=
=phula. Dr. R. adopts Doctor Barton's theo=
=ry of this disease: it is a misplaced fever.
The maxim that nemo dare potest
quod non habet, is not always true:
for Mothers have had Children born
with scrophula, who had it not them=
=selves. [Dr. Physick advises to open scrophu=
=lous tumors; but Mr. Hartshorne says they
will heal, superficially, by the first in=
=tention, and gather matter again directly].
Jan'y 20th. Lecture 60th. Scorbutic state of
fever- see Lind. Scurvy is an extravated
ship-fever. Dysentery is an introverted fever,
or a fever turned outside in— Scurvy is
a fever turned inside out. Dr. R. infers
it to be a fever from the petechiæ and
hæmorrhages which succeed it. Remedies-
In the early stages, where the pulse is

tense, as it has been observed to be in Land scurvy, venosection is proper: In other cases, the vegetable acids, &c. See Trotter, Lind, and Beddoes.— Convulsive state of Fever- is most common in children; but sometimes occurs in adults. It is a symptom of yellow fever, and some other forms. The Patient has been convulsed on using the least motion. Remedies- Vfection, oil of amber, and such other medicines as act on the muscular system. Hysterical & Hypochondriacal states of fever- They are occasionally symptoms of yellow fever, &c. Dr. R. saw a Lady in yellow fever, while it was epidemic, who had symptoms of hysteria: Her physician was giving her afsafœtida, &c. but Dr. R. bled her ten times, and cured her. Morbid action always seizes on debilitated parts; and in hypochondriacal or hysterical persons, assumes the forms of those diseases;- but we must always regard the epidemic, and prescribe for the original disease, according to the state of the system. Cutaneous state of fever- Leprosy is an extraverted fever. Apoplectic state of fever- The pulse has descended as low as 9, and even to 7 strokes in a minute. Remote & exciting causes;- great exercise of mind- straining

at stool - Dr. R. has known two cases of death from this cause. Mr. Merry, the Poet, died so at Baltimore. Anger has caused apoplexy - An old Tory who was loth to pay taxes to support rebellion, during our revolutionary war, was compelled to pay - he was so enraged, that he died apoplectic on delivering the money. Dr. R. says he might be said to have died of a Fit of Toryism! - A sudden stoppage of a salivation has produced apoplexy - Excessive smoking of tobacco - Two men, who smoked for a wager, both died; one with the 17th. and the other with the 10th. pipe in his mouth - As in Colic, Cynanche Trachealis, &c. there are often no symptoms of disease upon dissection, - so there are the same facts with respect to the appearance of the Brain in apoplectic patients. Dr. Cullen divides apoplexy into sanguineous and serous; but this would lead to a dangerous practice, - there is no foundation for the distinction. Premonitory signs of apoplexy - Frequent hemorrhage from the nose - a sudden darkness, or blindness, for a short time. Sometimes it is preceded by Colicky pains. - In these cases, bleeding is highly necessary to save the system from destruction.

One hour of this disease is worse than a whole week of common fever or a month of some other diseases. Blood-letting must be regulated by the habits of the Patient. If he can bear it, the bleeding should be prompt and large. Doctor Dewees lost 90 ounces in an attack of apoplexy; But sometimes the system is so depressed that blood must be drawn off very gradually, or the system will not react. Dr. R. would prefer Leeches, one up each nostril; or if these be not at hand, a sharp quill has by some been thrust up the nostrils, so as to cause a discharge of 4 or 5 ounces. In this way the Patient may be saved, when blood drawn from the arm would be fatal. This disease is generally fatal when it occurs in young people, under 30 years,- However, Doctor Dewees recovered. It is still worse in Children. When the disease comes on without premonitory signs, it is bad; it indicates the rupture of a bloodvessel. If the Patient put his hand to his head,- be convulsed on one side- have no fever in the forming stage, or beginning- these are all bad signs. The favorable symptoms are the reverse of many of these- also when the Patient has a general sweat, it is favorable.

Prophylactics- Avoid becoming habituated to any one kind of diet; for a change will then be dangerous, and few people can avoid an occasional change. When a person is predis:posed to apoplexy, he should keep a drain from his head by a seton, or Issue. Take great care to avoid damp, cold feet, when predisposed to this disease. Sleep on a hard bed, or matrass. Dr. Witherspoon was cured of this disease by an eruption of pimples on his skin; and never had it afterwards. An old fellow, who laid aside the use of Snuff, in order to get a wife, was affected with vertigo, Coma, &c.- Dr. Hope was consulted, and learning his former hab:its, ordered a return to them, which intirely relieved him. It is recommended to persons who are predisposed to apoplexy, to use Sulphur, as a laxative.

January 30th. Lecture 69th. Apoplexy is in:duced by a great variety of causes. Sometimes the excitement of the brain is so great as to leave no symptom of disease in it. Premon:itory signs- Night mare- colicky pains- tinnitus aurium- &c. Here venasection to 10 or 12 ounces will avert the dreadful shock. The first things to be done in cases of apoplexy, are to relax all ligatures- turn all unnecessary attendants out

of the room. Then use venaesection, either copi:
:ous or gradual, according as the system is able
to react. If it be much depressed, the bloodletting
must be gradual. If induced by a crapula, exp:
:cite vomiting by thrusting a feather down
the throat, &c. When a person has had one
fit, he is always disposed to another; he
should therefore avoid all exciting causes;
as cold feet, tight shoes, sleeping in a chair,
bad smells, costiveness, &c. &c. Drunkenness
is a form of apoplexy - it comes on with
garrulity, scolding, simpering, singing, shout:
:ing, &c. When farther advanced, the patient
throws bottles at the heads of the waiters;
breaks glasses, chairs, and tables, - burns his
clothes - fries his watch in a frying pan of lard,
&c. &c. and finally all the symptoms of
apoplectic drunkenness come on. [Dr. R.
here gave a complete account of the effects
of drinking, with much satire & just irony.]
The Paroxysms of apoplectic drunkenness
occur sometimes annually; as on the 4th.
of July, &c. sometimes half-yearly - monthly -
weekly - daily - and even hourly. - Some
are constantly drunk. It appears in this
chronic form, in many old drunkards. -
The remedies proper for this disease, are
such as are suited to the paroxysm; and

such as proper in the intervals. 1st. [347]
in the paroxysm - puking, excited by thrust-
-ing a feather down the throat; Mr. Fox cures
himself thus - Cold water pumped on the
head - Terror, as falling in the water, &c.
Whipping - exciting anger - untying liga-
-tures - and lastly, if these fail, dissection. -
2nd. Remedies proper in the intervals - It has
been cured by an appeal to the association
of ideas; as infusing tartar emetic in spirits,
&c. Moses appealed to this principle, by
dissolving the golden calf in hepar sulphu-
-ris - Another mode of preventing drinking
is to break habits - as some men drink
at one time of day only, in one com-
-pany only, at one tavern only, &c.
Now by breaking those habits we may
prevent the practice. A man was
shamed into sobriety by seeing one of
his negroes mimic him to the other
servants. A sudden sense of the sin
of drunkenness has cured it. A gentle-
-man who had attempted to kill his
wife, whom he tenderly loved, in one of
his drunken fits, was so struck with
the enormity of the crime, that he
was never drunk afterwards. The smell
of liquor has cured the love of it. We

should not taste liquor at all, if we [349]
wish to leave off the habit of drinking to
excess; but break off all at once. Bitters
infused in water, may be used to supply
the deficiency of stimulus. A blister
to the ankles, suspended chronic drunk-
-enness in a Lady, who drank 100 pounds
worth of Brandy in a year.— Palsy- all
people who work in Lead are more or less affected
with it. It sometimes succeeds half-cured
rheumatism, or rheumatalgia. It occurs
in all ages; Dr. R. has seen it in a boy of
10 years- but is most common after 50 years.
Palsy is often attended either with weeping,
or a kind of hysterical laugh. Remedies-
Where the brain is affected, bloodletting- Bleed-
-ing is often ineffectual by being used too
sparingly. When proper depletion has
been used, the warm bath is serviceable.
A heat of 98° of Fahrenheit, has succeeded
better than a greater heat. The skin is often
so sensible that cold water feels warm.
Terror has cured it; as in the son of Croesus,
who had a palsy of the tongue. Palsy is
known to be seated pretty much in the
nerves and muscles, because the Patient
often continues long in a similar state,
the mind is not disordered, &c. Here
Volatiles, stimulants, &c. should be used;

but should be regulated by the pulse. 351
Lifting weights, gradually increasing them, is useful. A paralytic patient once lived sixty days without eating - he only washed his mouth with water. In this case life was supported by an excessive stimulus, which supplied the place of aliment. Several persons have been cured by other diseases, as a fever from small pox, yellow fever, &c. Pains in the limbs often indicate convalescence. Catalepsy - in this disease the Patient does not fall down - Dr. R. supposes Archimedes had it, when the soldier made a blow at him. A young man was cured of it by leading into his presence the Lady whom he loved. A young man had catalepsy induced by his father selling a farm, on which his ancestors had lived, - and on which he had hoped to have lived and died. —

January 31st. Lecture 70th. We should advise persons who are disposed to palsy to lay alternately on each side, in bed. Wakefulness - is often caused by strong tea or coffee, Jesuits Bark, &c. but most commonly by mental stimuli. Rousseau and M'Bride were affected with it. Where the pulse is tense, &c. Bloodletting

acts like a charm. Dr. R. has used it in [353]
a case of wakefulness in a Lady just after
delivery of a child;- she was very weak, rest=
=less, and nerves irritable; and had evident
disposition to mania. He bled her 8 ounces-
the blood was sizy- took 4 ounces more in a
short time- gave pulv. antimon. and re=
=lieved her by procuring sleep. The feet here
are either cold, or dry,- and warm bricks,
and pediluvium will do service. Count=
=ing 100 backwards, or any thing of the kind,
which does not produce reflex sensation,
will often compose the Patient. Laying
on the side, thereby inducing a little
muscular action, and equalizing it over
the system. Blisters to the ankles?-
The Hop pillow procured sleep in the
present king of Great Britain.- Vertigo-
when it occurs in any other than a re=
=cumbent posture, this latter will
relieve it. Vertigo has ended in dropsy.
It is most common in old people. The
constant use of garlic has relieved it? A=
=void exciting causes. Dr. R. always forbids
the use of Coffee in the first place.-
Headache- occurs most frequently in
women; and often ceases about the 40th
year. The remote and exciting causes act
either immediately on the Head; as blows,

mal-conformation, collections of matter in the ears, and especially in the frontal sinuses, and also decayed teeth:- Or mediately, through the bloodvessels. It is sometimes a solitary symptom of Epidemic fever - it is a symptom of gout. It is produced by certain states of the atmosphere, as moisture, &c. by certain winds - by tight shoes, &c. Hard study acts directly on the head through the medium of the mind. Causes which act on the head, through the medium of the stomach, are certain aliments; as fat meats, &c. Bile in the stomach has caused it; and here the cure is effected by vomits. Remedies - When Headache is owing to mal-conformation, it cannot be cured; but may be palliated by occasional bleeding. When owing to blows, or contusion on the head, Copious venesection, cathartics, &c. - Dr. Physick cured Miss M'Kean by making several incisions down to the cranium through the scalp, after all other remedies had failed. When headache is a symptom of epidemic fever, the remedies for that fever must be used. When bleeding does not cure after several trials, the other remedies

should be resorted to; and especially a se- [357]
-livation. When it is a symptom of ap-
-proaching gout, it has been cured, and
the gout prevented, by cupping on the
head. When it is owing to costiveness, keep
the bowels gently open by laxatives. When
caused by bad teeth, extract them. It
is generally periodical when seated in the
nervous system. In periodical headache
the feet are generally cold - head some-
-times flushed and hot - sometimes pale -
sometimes there is a loss of memory,
pale urine, &c. If the bloodvessels here
be much excited, use venasection, purges,
blisters, &c. - If the excitement be suffo-
-cated, so that the system will not
react, - or if the system be too weak to
deplete, use stimuli; as ether, good
wine, Tincture of Valerian, or valerian and
Bark mixed have cured, when neither
would singly. Cordial diet has cured it;
as a potpie well seasoned with pepper, &c. -
February 1st. Lecture 21st. Epilepsy - per-
-haps the reason why this disease is so ob-
-stinate, is that the debility is deeper seated
in the system than in other cases of disease.

Dr. R. supposes that the noted Swedenborg [359]
had slight fits of Epilepsy, with partial de-
-rangement of mind. Sometimes the fits of
epilepsy are so violent as to produce an
emissio seminis; also parturition with-
-out consciousness. How violent must be the
action! Epilepsy often alternates with mania.
Doctor Johnstone found very little blood
in the veins of Patients who died of Epilepsy.
The remote causes are general and local. It
has been induced by frights, &c. Gen. Arnolds
effigy, exhibited in the night, brought it
on a young man. A suppression of flux-
-or albus has caused it. It is caused some-
-times by sympathy; as in the Pennsylvania
Hospital, when Dr. Hutchinson attended it.
A Lady bore a child which was affected
both with epilepsy and fatuity, in conse-
-quence, as was supposed, of seeing a per-
-son imitate one affected with it. Local
causes - decayed teeth, &c. Association - a sol-
-dier, who was first attacked by epilepsy
while drinking Beer, always was seized with
it afterwards when he attempted to drink
beer; - And a pregnant Lady, who had it

from standing too long under the hands of a mantua-maker, had it always afterwards in the like condition, until she was delivered. Another case, from fright, on going into a dark room, always returned on going into that room. Premonitory signs - a peculiar odor of the breath - pimples on the tongue - a sudden sense of horror, as if sure of dying - &c. Remedies in the forming stage - When there is a bitter taste in the mouth, emetics are useful - A purge of sulphur was found to be serviceable where there was that peculiar odor in the breath. Opium where the action is moderate. Dr. Cullen prevented it two or three weeks in a girl, by terrifying her with a threat of burning her forehead if she had any more. When the fit comes on, fresh air, a recumbent posture, &c. are proper to be observed. Remedies in the fit - Depletion; it was cured once by using bloodletting so as to induce dropsy - A milk diet; a pint in the morning, a quart at noon, and a pint in the evening, feeding the cow on grass, or hay, cured a person in one instance. It is said that a milk diet has cured more than any thing else. The system is like a thermometer, always vibrating, in excitement, above or below the healthy point; and yet the person may enjoy good health. Salivation may

be tried; but Dr. R. has found several to [363]
relapse whom he thought he had cured by
this remedy. In the intervals, tonics and
stimulants may be used. Opium, to be
effectual, must be given so as to excite
delirium. Dr. Archer cured two cases by
the strammonium. Though it be not so
safe to excite a counter morbid action
in the brain, as in the salivary glands,
yet a little might be conscientiously
kept up in it for a few days, or even
weeks; and it might be successfully done.
Dr. R. cured two cases with the Saccharum
Saturni, 2 grains two or three times a day;
both patients were under 16 years of age.
We read of a person being cured by swallow-
-ing a piece of silver: This argues in favor
of the nitrate of silver. Both headache &
Epilepsy have been cured by Labor. We have
an instance of a man who only had epilep-
-sy on sundays and holidays: This shows
the utility of labor, which is a good substi-
-tute for camp life, which cured Cæsar.
Blisters all over the head, have cured it. The
stomach should never be full nor empty.
There is often a morbid appetite. Use diet by
weight and measure; for temperance is essential.

February 2nd. Lecture 72nd. Asthma.
is distinguished from pneumony by not being attended with fever - from Dyspnœa, by having intervals of ease and perfect health; which is not the case with dyspnœa. Remote causes - great heat; hence the worst cases occur in the heat of summer - Retrocession of eruptions has caused it - Gallstones have caused it - as also have waffles and buckwheat cakes, &c. Sometimes the first fit occurs in the first pregnancy. Patients in this disease generally find out the easiest position, themselves; but sometimes they do not, - and it is well enough to know it. It is with the legs horizontal, head bent forward on the breast, and body a little bent. Chronic Asthma is generally owing to malconformation of the breast. Asthma ends sometimes in pneumony - dropsy, particularly of the thorax - It alternates with hydrothorax sometimes, and sometimes with mania - Premonitory signs - langour, &c. The disease may here be prevented by pediluvium - a few drops of Laudanum - sitting up all night, according to Sir John Floyer, who was afflicted with it - The asthma assumes all the symptoms of dying from other diseases - as cold hands, &c. The humid asthma is known by the patient expectorating a great deal in the morning. In the paroxysm, the pulse does not indicate the violence of the disease; but venesection is of great use - it shortens

the paroxysm, and prevents the violence which [367]
would otherwise be done to the lungs. Even in cases
attended with great palenes, &c. the lancet is in-
-dicated; and perhaps sometimes even more
strongly. Remedies for the intervals - A damp
atmosphere will relieve dry asthma, & vice versâ.
In pituitous asthma, the patient spends some-
-times one quarter of an hour in the morning
in discharging phlegm. A seton in the side,
or issue in the arm, has cured asthma. Hard-
-ships and journies have cured it; also a re-
-currence to old habits. Large doses of the oxyd
of iron has cured it. All diseases have a ten-
-dency to intermit, and become periodical;
and in these cases the best remedies are tonics, ex-
-hibited just before the paroxysm. This principle
is of extensive application in practice; for in-
-termittent fever has no more title to an exclusive
use of tonics in this way, than pneumony has
of the use of the lancet. Hysteria - In this dis-
-ease, the hands and limbs are swelled in
the morning, by halitus - In dropsy they are
swelled in the evening, by serum. In the in-
-tervals, the pulse is nearly natural; except
in plethoric hysteria. Remote causes - strong
tea and coffee, &c. hence we see hysterics in
the kitchen, as well as the parlour. Remedies
in the paroxysm are - Vsection, especially in
Hysteria plethorica, which is much more fre-
-quent than we suspect - and in this case

we often lose the good effects of stimuli, by not bleeding beforehand to prepare the way for them. Clysters are useful when the patient is costive; they discharge both faces and wind, and restore the natural action of the bowels, which is often retrograde. Remedies in the intervals - if the disease be not of the plethoric kind, cordial diet, exercise, &c. Tight bandages round the body and limbs, as tight as the patient can well bear them. Blisters on the arms, or wrists, draw off the straggling morbid excitement, or concentrate it in the blistered parts.

February 3rd. Lecture 73rd. Dyspnœa is sometimes caused by an accumulation of fat in the mediastinum. This often produces the disease in horses. Tumors also cause it: Dr. R. saw such a case; & morgagni discribes such cases. Angina pectoris - sometimes dissections show no marks of this disease; here the excitement was too great to discover marks of disease. A man whom Dr. R. had advised to drink Port wine for a diarrhœa, was finally affected with Angina pectoris, and died with what might be called an apoplexy of the breast. Some of those who have died with it, have been

found to be affected with polypi in the [371]
heart; but they are the effect of disease.
This disease is said to be incurable; but
Dr. R. has not found it so. When it is owing
to debility, &c. use nitrate of silver, sulphate
of zinc, &c.. Whooping cough - is evidently
contagious. Sydenham says it is a most per=
=tinacious disease; and almost incurable.
Dr. R. does not says he has cured the dis=
=ease; but he is sure he has often miti=
=gated its violence. He has lost two patients
in it; one died of a consumption, and the
other died in a paroxysm. When there is
great morbid action, use venesection, nau=
=seating medicines, such as Ipecacuanha,
squills, &c. After the excessive action is
reduced, tonics are proper. Tremors - they
begin in the hands, extend up the arms,
and finally affect the whole body. Convul=
=sions - are caused by all the remote causes
of fever. In cases of syncope, from bleeding,
the patient often revives with convulsions.
When they come on in pregnant or par=
=turient women, copious, very copious bleed=
=ing is generally proper. Dr. Hamilton of
Edinburgh, uses it to the amount of 100
ounces. Tetanus - In this disease the pulse

is sometimes as low as 40 strokes in a minute. The debility which succeeds parturition favors tetanus. Exciting causes- cold applied to the body after great heat- it occurs sometimes in fevers. In this case it is sometimes epidemic; but it can be so in no other case. It was once supposed that the only idiopathic cases of tetanus were caused by wounds in the nerves; but very superficial wounds have caused it, when the body was much predisposed to it. Cutting the navel-string with dull scissors causes trismus nascentium. The whole nervous and muscular system is an unit- a band of Brothers- and when a part is wounded, the disease always attacks the weakest part, and the whole system exerts its influence, by reacting. When tetanus is caused by punctures, &c. the natural irritation and inflammation ought to be excited in the wounded part. The disease should be kept in its natural and proper situation. When the foot is wounded, the part should be dilated, and excited to inflammation. Unfortunately opium and tetanus

have been associated as much as Bark /373/ and Intermittent fever, or Hellebore and Madness. Why should we confine ourselves to one stimulus alone? Dr. R. has found advantage from using several other stimuli. Bleeding should not be much relied on. Disease should be excited in the Bloodvessels, by inflammation from the wound. As in some fevers the blood-vessels are insulated, and ought not to be attacked circuitously, but immediately by the lancet, - so in this disease the morbid excitement is insulated in the nervous and muscular systems, and the excitement should be drawn from them into the bloodvessels, and equalized. Remedies - powerful stimuli. A Quack in New England makes his patients drunk; on being asked his reason for giving this remedy, he said he always observed the jaw to hang down in drunken men; & therefore thought drunkenness would cure the lockjaw! This, however, was reasoning, or theorizing; and tolerably correct analogical reasoning too. Dr. Duffield dilated a wound which had nearly healed, in a girl who was very ill with tetanus;

* There appears to be a kind of Antagonist action between a wound and the whole system; as we see in wounds which produce Tetanus - Where the wound pre= =vails, and inflames, the system remains quiescent, or healthy - But where the sys= =tem prevails, and the wound remains in= =active, the system is thrown into violent action, and tetanus with all its symptoms is induced. Therefore the wound ought to be assisted by irritating applications. —

on pouring in some Tincture of Cantharides she had a general convulsion, started up and asked him what he was doing: She had not spoken for some time before. She had no more tetanus afterwards: Inflam:: mation came on, and she was cured. Dr. R. has lately heard of 5 graing of Corros:: ive sublimate curing the disease: It ex:: cited a moderate degree of inflammation in the bowels, and thereby diverted the disease from the other parts of the body.*

Febrvary 4th. Secture 7th. Chorea S.ti Viti is most common in children; but Dr. R. has seen it in a schoolmaster. Hiccough - when it occurs in the early stage of fevers, Dr. R. has cured it instantly by bloodletting; but as it is most common after fevers, or in the debilitated state, it is more frequently nec:: cesary to use stimulants, as the oleum Succini, Æther, &c. It continued for two years, in a gentleman in Virginia. Colic is attended with a sense of twisting of the In:: testines, and a retraction of the abdominal muscles, sometimes almost to the spine. It is called dry-belly-ache, & Colica pictonum. When it caused by a diseased Liver, it may be known by the cubitus of the patient being

on the right side only. When caused by diseased kidneys, there is turbid urine. It has also been caused by sour cider, low wines, &c. Premonitory signs - cold dry feet - costiveness, slight pain, &c. In this stage, the pediluvium, and a dose of ten drops of Laudanum will cure, or rather prevent the disease. It has been often cured by taking Laudanum in the forming stage, and also by a ride on horseback, &c. For the Paroxysm - venaesection pro re nata. &c. Remember the connection between the skin and bowels; they are like antagonist muscles; and therefore blisters, or rubefacients, are indicated. No effectual relief should be considered as obtained, until the griping is felt below the navel, or a diarrhoea comes on. A soreness of the lower extremeties is a good sign. This disease sometimes ends in palsy: so does Rheumatism, and some other diseases; - but if proper depletion be used in these cases, it is prevented. Prophylactics - riding - and wearing the flannel belt, or roller, recommended for diarrhoea. - Diarrhoea of the chronic kind - is excited by general and topical - The general causes are cold &c. The topical

are acrids, and improper diet &c. appli-
-ed to the intestines. In the case of a Lady
who had a diarrhœa that alternated with
rheumatism, and attended with a tense
pulse in both forms, Dr. R. bled with great
advantage; and afterwards effected a cure
by the usual tonics, or astringent medi-
-cines. The preparation of galls is a val-
-uable medicine in chronic diarrhœa
which is unattended with inflamma-
-tory - The formula is as follows, viz.
℞. Galls ℥fs. Cinnamon, or nutmeg,
℥ij. water ℥xvj. Boil to half a pint, and
then add some syrup. The dose is a ta-
-blespoonful three times a day. This is
a good remedy where tonics are required.
The chalk julep is an useful preparation in
this complaint - it is composed of salt of tartar,
prepared chalk, gum arabic, loaf sugar, & water.
Where the bowels are affected with acrid con-
-tents, milk has cured it. Thickened milk,
as it is called, is very good - as also is boiled
milk. Milk has cured a recent, or incipient
dysentery. It cures Heartburn, by uniting with
the acid, and neutralizing it. A Clyster of ℥fs.
of Ipecacuanha diffused in water, and fifty
drops of Laudanum added, has cured diar-
-rhœa. Tartar Emetic has been recommended,

in order to excite new action. The Egyptian remedy is a valuable one, in this disease; it consists of a flannel roller, or broad band: age, applied firmly about the abdomen, next to the skin. A physician does not do his patient justice until he prescribes for his feet. Woolen socks are useful for cold feet, worn on the outside, or over the boots, and shoes. Cork soals are also good. ———

February 6th. Secture 75th. Costiveness - is only a remote cause of disease. Negligence often induces costiveness; as neglecting to go to stool, when urged. A fish bone has been known to cause it, by getting across the rectum. Tow caused it in a child; it was put into its mouth, to stop it from crying, and swallowed. Riding on horseback generally causes it. Remedies - Early rising - and exposing the body to cool air: It throws the excitement on the bowels - Live on laxative diet; as mush, &c. A bread made of equal parts of wheat and indian meal is very good. Roasted apples are good - boiled prunes - cream of tartar, and sulphur -. Butter-nut pills are bad; they induce palsy, and other affections of the brain. They are useful in some acute diseases; as in lying in women, &c.

Condylomata should never be cut off with a knife; but always with a ligature. A close-stool in a warm room, has allowed a stool, when it could not be procured in the cold. Palpitation of the Heart - when owing to polypi, or aneurysm, cannot be cured; but it may be palliated by temperance, equable state of mind, regular body, and occasional venesection. But this disease is much oftener an affection of the whole system; it occurs in the early stage of diabetes, &c. - Cured by bleeding, purges, &c. - Dyspepsia - comes on often with vitiated appetite - a desire of eating putrid meat - mortar, coal, slatepencils, chalk, &c. Causes acting directly on the stomach - swallowing snuff - an overcharge of food, and drink. Those people have best health who drink least between meals; especially in the morning, or between breakfast and dinner. Dr. R. can endure the heat in summer best, when he drinks but little. The frequent use of Emetics has caused dyspepsia. Smoking tobacco causes it. It has been induced by the continued use of nitre, in ascites, and pulmonic affections. Causes acting indirectly - It has been caused by checking a fetid sweating of the feet. It has been called

Morbus Studiosorum. The stomach is a faithful viscus; it has great influence on the system. The best soldiers are - an Irishman drunk - an Englishman with a full stomach and a Scotchman with an empty one. Never make a motion in a popular assembly, which you wish to carry, just before dinner. Perhaps even a young Lady would be more successfully petitioned just after she had taken her dinner! Were Dr. R. to underwrite a man's life, he would first ask if he had been affected with diseases of the stomach. Palliatives - a teaspoonful of common salt, after dinner - a grain of pepper has been of use in that kind of dyspepsia attended with headache. A few drops of Laudanum just before dinner relieved, or prevented it, in Dr. Priestley. In Maryland, the farmers give their hogs charcoal when they eat too much; and it might perhaps be used with advantage in dyspeptic Patients. Dr. R. thinks it is the Carbonic acid which affords the relief. Radical Remedies - After suitable Emetics, &c. have been used, a course of Bitters. Dr. R. speaks highly of the Quassia; but says it must not be entirely depended on. The Bark does not do so well as the simple bitters. Dyspepsia is more successfully treated by regulating the diet, than by giving Medicine. Much drink

disposes to fermentation, prevents the action of [389]
the gastric juice, and carries the food too soon in-
-to the duodenum. Oysters, eggs, &c. make a good
breakfast - drink a wine-glassful, or so, of
porter with them, if thirst require it; it is
better than tea or coffee - But do not drink
much; it dilutes the gastric juice too much.
Never set a large quantity of food before
a dyspeptic at once; the effluvium de-
-stroys the appetite. The patient will often
eat, if surprized by a small dish of nice a-
-liment, when he would not if he knew an
hour or two beforehand that it was coming.
A nice dish from a neighbor will often
be eaten when nothing about the house
will. A gradual use of milk has suc-
-ceeded in a patient of John Hunter, when
all other remedies failed. Eat often: Dr. K.
has advised his dyspeptic patients to carry
bread and dry meat in a box, instead of
tobacco; and to eat often. When every
other plan fails, try a salivation. In
cases of excessive arterial action, bleeding is
useful and proper.

February 7th. Lecture 16th. Diseases of the mind - Faculties and operations - Voli-
-tion is an operation of the mind subse-
-quent to the other four, viz. Perception,
Association, Judgment, and Reason.

Hypochondriasis is so called, from the viscera in the hypochondrium being found sometimes diseased, and being supposed to be the cause of this disease. But this is the effect of disease. Proximate Cause of Hypochondriasis - weak morbid action. Children born of aged parents are said to be most subject to Hypo. It differs from Hysteria by the mind being constantly depressed. Does the typhus state of fever require different remedies from the typhoid state which preceded it? so does Hypochondriasis require different remedies from Hysteria. This is the true difference between those diseases. Dyspepsia is the connecting link between them. Hypochondriasis may be called the typhus state of the nervous system. In Hypo. Warm air, &c. are agreeable to the patient. This is a symptom of Hypo. - for in Hysteria there is more action, or excitement. Remedies - Opium is the Medicina Mentis. Steel & Bark are said to do harm. They are not injurious; they are only inert, and do harm only by being used instead of better medicines. It is necessary often to excite the system somewhat, before the cold bath is proper; for before this, it will be much like Bark & steel.

The system will not react. Dr. Bond drew the devil out of an old hyp'd Quaker's arm, by bloodletting. The delusion of the Hypochondriac is always with respect to himself, and not to others, nor to external objects. Hypo. ends often in Melancholy; as Hysteria ends in Hypochondriasis. As the disease is real, although attended with much false idea, we should always be serious, and attentive to the patient. Never give your opinion to any one, that the patient is only hyp'd. Always admit their premises; you may arrive at your own conclusions afterwards. A man was once afraid to make water, lest he should drown the world: he was, however, induced to urinate, by being told the globe was on fire! Business is the great remedy. The happiness of a rural life, among shady groves, purling brooks, and such like, never had any Existence but in the brains of mad Poets, and lovesick Boys and Girls. Anger has cured Hypo. - as in the German student who fancied himself dead, and ordered the bell to be tolled; which being awkwardly done, he kicked down the Bellman, and rung it himself until the exercise, and

his passion cured him. A gentleman [395]
cured a fit of low spirits by changing his clothes.
Clean linen - a combed head - cut nails - and
a shaved beard, have great influence on the
state of the mind. Riding on horseback -
Montaigne never was so well as when
on horseback. Endeavor to prevent them
from telling their complaints. Thinking
on them increases them. Company cha-
-ses away melancholy as certainly as a
candle chases away the fear of spectres
in the mind of a child. When the disease
is owing to Love, debt, or Guilt, we should
inquire of the relatives; for the Patient
will not give a true account. A new
mistress, and absence, are the best cure
of Love. Read the Scriptures - They have
been compared to an Apothecary's shop,
as containing a remedy for every disease
of the mind. A Gentleman was prevent-
-ed from committing suicide, by drinking
some wine; finding this a cure for low
spirits, he resorted to wine and was cured.
Excite a counter-passion in those who
are determined to kill themselves, - or
indulge them a little. It is remarka-
-ble that Hypochondriacs seldom, or
never make a second attempt to
destroy themselves.

February 8th. Secture 7th. In Hypo- 397
-chondriasis, plaintive music may be first used; a little more cheerful, however, than the state of mind. But it must not be disproportioned; for Solomon says, a Song to a heavy heart is like mixing nitre (i.e. Carbonate of Soda) and vinegar. W. Cowper, when melancholic, could not bear to hear his facetious story of John Gilpin; where: as he would be pleased and soothed with some others more serious. Mrs Robinson was soothed by the majesty of the dashing waves: They please by their motion, for motion gives Hypochondriacs pleasure. Mania— Dr. R. does not believe mania is seated exclu-sively in the nervous system; for many affec-tions of the nerves, as Hysteria, Epilepsy, &c. do not produce madness; but only instability. In the forming staze of madness, the patient has a pain in his head, and a sense of fulness. While madness is a disease, the pulse is always full, frequent, and tense. When it has contin-ued long, or is in a state of disorder, the pulse is altered, and becomes natural, or weak, &c. When called on to decide, whether a person be mad, by proper attention to the pulse we shall seldom be deceived. The tongue is moist in mad-ness, and pulmonary Consumption. It would seem that a dry tongue was connected with

absence of excitement in the muscular sys- [399]
-tem. In these two diseases, muscular excitement
is not diminished. Mania occurs in Brutes; this
shows that it is not originally a disease
of the mind; for brutes are not endowed with
mind enough to produce madness; nor have
they passions sufficient, - neither do they meditate
sufficiently to produce it. Dr. R. infers that man-
-ia is a disease of the Bloodvessels, because it is
cured by the same remedies which cure mor-
-bid action in the bloodvessels, in other parts
of the body. Lucid intervals are only inter-
-missions of the disease. Sometimes there are
only remissions. When Rheumatism, puerper-
-al fever, &c. are said to alternate with man-
-ia, it is not so - it is those diseases appear-
-ing in the form of mania - attacking those
parts which are the seat of mania. Dr. R.
infers that mania is a disease of the bloodves-
-els, or a fever, from its being attended with
chills, costiveness, &c. like other fevers. It is
sometimes epidemic; this is because the
epidemic fever attacks the Brain, produc-
-ing that derangement in which mania
consists. The brain is often found indurated
in maniacs. Sometimes preternaturally soft -
but this is probably in recent cases. A cube
of the brain of a maniac weighed 7 drachms;
whereas a cube of the same dimensions
of the brain of a person who died with a

sound brain, weighed but about one /401/
drachm: This shows the maniacal brain
to be much more dense. Sometimes no symp=
=toms of disease are discoverable in the brain;
here no more occurs than is to be seen in
some cases of malignant fever: The ex=
=citement was too high to produce marks
of disease. There cannot be alienation
of mind without morbid action in the
brain; or in other words, without fever.
In old chronic cases, or where disorder
exists, there may be madness without
apparent marks of fever, it is true;
but the same thing sometimes occurs
in old cases of Rheumatism, - which is
confessedly a disease of Pyrexia. Mania ex=
=ists in different grades and degrees. The pa=
=tients are made with respect to themselves,
called Melancholy - or secondly, they are
partially mad, - are only mad on certain
subjects - or thirdly, they are mad on all
subjects. Sometimes they mistake their
friends, &c. This is from false, or diseased
perception. When the Sensorium and
the senses are both sound, the perceptions
are correct; but even with healthy senses,
if the sensorium become diseased, the

healthy perception ceases – a wrong, or dis/403/
:eased one, is the result of impression,
however healthy the part on which it
was made. Diseased perception also oc=
:curs from diseased senses, while the
sensorium is sound; as when we cross
the fingers, and roll a marble with them
in the palm of the other hand: here the
nerves are diseased, or deranged, and hence
give us wrong perceptions. New relations
of ideas, and new associations are formed
in Mania, but no new Ideas are pro=
=duced; for Ajax who killed the ram
under a belief that it was Ulysses,
would not have thought so, if he had never
seen a ram before. There are said to be
few or no cases of madness in the despot=
=ic governments of the East Indies and
China, because the mind is there torpid;
but fatuity is very prevalent. The Poet
says, "Great wit and madness nearly are allied;"
but this is not correct. Dr. R. has seen
more cases where the understanding
was weak, but the passions strong.
February 6th. Secture 7th. Mania – is
seated primarily, though not exclusively
in the arterial system – Other parts, or

systems, are diseased through sympathy. /405/
The hard brain of maniacs is the effect
of the disease. It is a tendency to schirrus
of the brain. Universal mania produces
1. false perception - 2. false Association - 3.
false judgment - 4. false reason, or induction.
Mania seldom affects very young children.
There are only two cases in the records of
our Hospital, of Boys being affected with it.
Greding mentions a case of a child that was
born mad. The reason why children are
less liable to it is, they are not so much
affected by those impressions which com-
-monly induce mania in adults. The
causes which in adults would produce
mania, produces only delirium in
Children. Old people are seldom attack-
-ed by this disease, owing to the diminution
of the vibratility of their systems. General
Montgomery's family, however, was an excep-
-tion to this; they generally became mad at
about 50 years. The remote cause of ma-
-nia in Adults, only produces delirium
in children. Remote & Exciting Causes -
such as act directly on the brain, - as
mal-conformation, lesions, &c. Sometimes
Patients are not affected for many years
after the injury; it has been even 20 years.

Causes which act indirectly — Suppressions of eruptions, or discharges — Dropsy — toothache — translation of disease from other parts to the brain; especially from the skin — Old wounds; as grazing of shot in the feet, &c. decayed teeth — The usual causes of Autumnal fevers — The fumes of Lead; this occurs in Scotland — A full meal has induced it. When caused by other diseases, they are generally of a febrile nature; but it has been caused by Epilepsy, — by Apoplexy — by St. Vitus's dance — In this last case it went off by the same channel, viz. St. Vitus's dance. This is frequently the case. When preceded by hypochondriasis, or hysteria, it often goes off by them; and the same of other diseases; — hence when brought on by hysteria, it is a good sign to see the patient weep; it shows that the system is descending to hysteria. Mania has been caused by the transfusion of the blood of other animals, in France; it was done with a view to renovate life, — but this can never be done. Dr. R. has experienced headache from reading on a variety of subjects, in magazines, &c. — hence he can believe, and explain why Booksellers are most subject to it in London. Dr. R. has seen mania from imaginary

guilt, oftener than from real guilt. [409]
A young man of great piety, now in the Pennsylvania Hospital, became mad from believing he had offended God by omitting to say grace, through bashfulness, at the table of a Friend. The study of the Revelations is said generally to leave a man mad, if it does not find him so: but this is owing to the attempt to fix upon the time in which those prophecies are to be fulfilled: for a belief of their being true, offers no more violence to human reason, than the belief of the return of an absent season. There are a great many instances of partial derangement, or derangement of judgement. In the beginning of this kind, all the other mental operations are sometimes deranged; but soon become correct again. They are affected by sympathy. Universal Mania - is both tonic and atonic - The predisposing cause is debility. In this state a morbid excitability accumulates, and is easily converted into morbid excitement, by exciting causes. Premonitory signs of Tonic mania - jealousy, - much, and unusual talk, &c. - of atonic - This often begins with melancholy, &c. - In the predisposition to tonic mania, depletion, low diet, darkness, variety of study, &c. will

avert it. In that of atonic, company, cheerfulness, stimulating, or cordial diet and drinks. Symptoms of tonic madness- furiousness- rattling of chains, when confined- shouting- deep-rooted enmity towards friends and relations- impious and obscene language- diminished secretion of urine, &c. The pulse is synocha, intermittent, &c. Sometimes they have great appetites- maniacs often inflict great pain upon their bodies to relieve their pain of mind. Weeping affords relief to maniacs, when they can do it; but they are generally above the weeping point.

February 10th. Secture 79th. Those who exercise their passions most, as sculptors & painters, &c. are more subject to mania than those who exercise their understanding most, as Natural philosophers, Chemists, &c. The most frequent causes of mania are disappointed Love, mistaken notions of religion, Drunkenness, &c. Symptoms of atonic mania- The patients suffer their hair, beard and nails to grow- are very insensible to cold,- a man slept several years in the Cupola of a hospital. The pulse is languid, or quick- The moral faculties are often very much impaired, and the patient is very vicious; But they are sometimes unimpaired;

and in this state they are often useful in families - are inoffensive, affectionate, and pious. In this state they sometimes become fat, or corpulent. Atonic mania occasionally alternates with tonic, and the patient becomes noisy, at times; this may be owing to various exciting causes, - as change of weather, of treatment, or influence of the moon, &c. Remedies for tonic madness - Bloodletting is only used freely in the United States. In other countries it may be compared to dews in a time of drought, which are barely sufficient to keep the plants alive; but with us it is used so freely as to be comparable to large and refreshing showers. Venesection is indicated by a variety of circumstances, - By the appetite being unimpaired; this is a reason for bleeding in inflammatory consumption, where the appetite is good. More blood is required to be taken in such cases. In the early stage of tonic madness, bleed largely - 20 or 30 ounces at once - It will often prevent the necessity of chains and mad-shirts. If the bleeding, however, do not quiet the patient, a mad shirt should be used; it does not irritate him so much as holding him - but if the shirt can be done without, it ought to be. In this high grade, the patient should be kept as solitary as possible. Inasmuch as the excitability

accumulates in sleep, it might be of [415]
service to keep them awake. Stoll speaks of
this remedy. Low diet is good; but in this
state, fasting would perhaps be better. E=
=metics - purges are ancient and valuable
medicines. Blisters may be applied to the
head in the latter stages; but in the early
stages they would aggravate the disease;
and should be applied to the ankles, to e=
=qualize the excitement, after venasection
&c. had been used. Cold - The affusion of
cold water; but not the cold bath - however,
keeping them under water until they were
almost drowned, has effected a cure. When
they are very refractory, hard labor has cured
it; and in every state, the labor should be
accommodated to it. Neutralizing their ruling
passions, has been of service, by opposing
other passions - as fear, when they are rav=
=ing - plaintive, or sedative music, &c. Some=
=times, says Dr. R. their Luxated Braxing, if I
may be allowed the expression, have been
suddenly reduced, by convincing them of
their ridiculous conduct; as in the watch=
=maker of Paris.

February 11th. Lecture 20th. Tigers, mad bulls,
mad dogs, &c. will shrink from the human
eye, if you can catch their eyes, and face
them down: This also applies to maniacs.

As in the highest grade of fever, we soothe and abstract,—so in the highest degree of mania we do not contradict, but give into their opinions. As in the second grade, or in the declining stages of fever, we induce new action in the blood-vessels by the proper remedies,—so in the second grade of mania we may venture to divert their attention from their usual theme, by introducing some new and interesting subject of discourse. And as in the low stages of fever, we stimulate the system,—so in the weak stages of mania, or in convalescence, we may often contradict our patients, or argue with them, to great advantage. A Lady was once observed to be crazy at all times, except when she played at Cards; Her friends thereupon continued to play with her, by turns, until her mind had recovered its proper action and tone—after which she did not relapse. A Judge was perfectly sound in mind, while on the bench, but as soon as he left it he was deranged. In this case the associations of ideas were correct from the pressure of business, which overcame the wrong action of the

Brain; but as soon as this was withdrawn, [419] the wrong action returned. Digitalis has been used for tonic madness; but it is not of much avail. Coercion has been used with success; but it leaves a very disagreeable impression on the mind, - as in the King of England. His Majesty having been pretty severely horse-whipped during the paroxysm, could never after see a whip without great emotion. Bloodletting supercedes Madshirts, whips, Yoking to the plough, &c. &c. - If used in proper time and quantity, it as certainly reduces the system, and promotes a cure, in tonic mania, as in pneumony. Remedies for Atonic Mania. Caustics are very good - perhaps better than blisters. Atonic mania has often been cured by fevers, and other inflammatory diseases, as angina, &c. which leads Dr. R. to suspect that pressing the jugular veins would be of service. Excite anger, and other stimulating passions. Dr. Bond once caused a taciturn maniac to speak, by remarking that a flower which he was engaged in drawing, was a very pretty Cabbage! The maniac was so irritated, that he called the Dr. a fool and a liar; and continued to speak afterwards. - Vide Pinel on mania.

Exercise is one of the best remedies. Female /421/
should spin, & such like work. Confinement is
seldom necessary in this state of madness; and
should not be used, except when they are
mischievous, or inclined to run away. Sali=
=vation is unfortunately difficult to excite;
but it should be tried,- for they have often
spoken as soon as the mouth was touched,
after being long taciturn. Many are disheart=
=ened from attempting a cure, because mani=
=acs are apt to relapse; But we often see
relapses after Intermittent fever, & pneumony-
and yet we do not forbear to attempt cu=
=ring them- nor do we think less of the Bark
nor the Lancet; and it is better to cure man=
=ia by the proper remedies, than to leave it
to nature:- It debilitates and injures the
system less,- as it is better to lift the latch
of a door, and turn it on its hinges, than
to burst off the catch, or break a lock.-
By declaring madness to be a curable dis=
=ease, we would often prevent its being in=
=curable; for then the application for Reme=
=dies would be more early, and their exhi=
=bition attended with more success. Vice
itself is a derangement of the moral fa=
=culties; and may often be palliated by phy=
=sical remedies, if not completely cured.

Symptoms of favorable & unfavorable issue of mania - A return to old habits of body or mind. Sir George Baker predicted the recovery of King George, by observing the return of his rapid manner of speaking (for which he is so famous in Peter Pindar's writings) A disappearance of those antipathies which maniacs generally have while they are much diseased, is a good sign. A man who had formerly been fond of gingerbread, showed signs of convalescence, by asking for it. A woman, who before her mania did not say her prayers, observed the practice strictly while she was deranged, - and first manifested her convalescence by ceasing to pray. Madness from physical causes is more easily cured than that from mental causes. Those who have no children, are more easily cured than those who have. Old People are seldom cured. Mania sometimes terminates fatally by dropsical swellings: Sometimes by the attic mode. i.e. starvation. -

February 13th. Lecture 81st. After madness has continued for a long time, it often ends in fatuity, or what Dr. K. calls manalgia - There is no fever present in manalgia; it is below the febrile point. There is a total absence of memory and understanding, - but

there are several grades of it. The Cretins are said to have very thin skulls. The faces of manalgic patients are said to be larger in proportion to their heads, than in any other case. Dr. K. supposes the first impressions on the new-born babe to be all painful; & infers that pain might be useful in resuscitating reason, in manalgic patients. As they are all great eaters, it would be proper to try a low diet, exercise, hot bath, &c. Idiots ought to be considered as children; and reason, or knowledge, in order to be permanent, should be given them slowly. Entertaining books, &c. should be given them. Fatuity from fevers, may often be cured by exercise, company, &c. Dr. Franklin preserved his faculties by reading, &c. He lost his memory somewhat; but although he could not tell his old acquaintances by sight, yet he could recognize them by the sound of their voices. The moral faculties are independent of reason. Defect of Memory - first for words - In this case we see no more than in affections of other parts - as in chorea sancti viti, if the patient attempt to move one limb, he moves another. There is a kind of palsy of the memory, in some cases of defect of memory. A man

* He certainly admitted a good number of bigot=ted and illiberal ones; especially towards America. WD.

who lost his memory for sounds, remem-
bered the letters which composed the words.
There have been many causes of a defect of
memory. A sudden stoppage of an issue has
caused it. Resorting to snuff has caused it; &
leaving it off, cured it. A cessation from
study has caused a loss of memory. Dr. R.
would not employ a Lawyer, or Physician
who had been out of business several years;
for we are not stationary when we cease to
study, but actually retrograde in consequence-
as a man in a boat ascending a river,
when he ceases to row, he is carried down
stream. There have been some cases of a
sudden cure. The luxated memory was
suddenly reduced. We see something like
this in the cures of Rheumatism, &c. by
Lightning- &c. Remedies- Memory is aid-
-ed by hearing; hence children read aloud.
Dr. Johnson preserved his memory, by never
overburthening his receptacle of ideas with
useless ones. Young people should avoid
the use of Memorandum books. They are
like go-carts to children learning to walk.
Association is a very powerful assistant
to the memory. We always remember the
last thing we do previous to going to bed.
Physical means of improving the memory-

Remedies according to the state of the system. [429] Bloodletting has aided the memory. In Atonic Amnesia, Cardamum seeds, and other spices and stimuli. Pope says that riding a trotting horse is the best thing to restore ideas. Excessive exertion to remember, or recall ideas, is injurious to the memory, and prevents it for a while. The Countess of Navarre recovered her knowledge of the welsh language in a delirium.

February 14th. Lecture 82nd. Dreaming is owing to either a strong or weak, a general or partial morbid action in the brain,- caused by bad positions of the head, &c. &c. Those who are accustomed to eat heartily, and go occasionally to bed supperless, have dreams at such times. Somnambulists have a sweat on them, are pale, and evidently diseased. Phantasms indicate either the forming stage, or the actual existence of disease. They are explained thus- An impression is made on a part which does not vibrate with it; but the impression is communicated to a part on which the impression of certain persons or sounds was formerly made, and which did vibrate; and hence we fancy we see certain persons not

present, or hear certain sounds which do not exist. No more happens here than does when a stone in the bladder irritates the Glans Penis. It is owing to this part being more vibratile than that on which the impression was made; and hence the impression is transferred to that place before it is perceived. Just as in cases of a wounded nerve, morbid action travels all over the system, until it meets with debility in the lower jaw, and there produces Lockjaw.

Absence of Mind - Stupid people are most commonly affected with it. There never were but 3 persons, according to Chesterfield, who had a right to be absent - viz. Lord Bacon, Mr. Locke, and Sir Isaac Newton. Those who posess moderate talents, and yet are absent minded, are either affected or stupid.

Syncope - Patients often come to with convulsions. Take notice of this fact; for people often tell us the patient has had a convulsion fit: When it occurs in this case, it is not dangerous. It is sometimes caused by polypi in the heart - tapping in dropsy, &c. When owing to too sudden impression of miasma, bloodletting will relieve it. To prevent a return, use exercise, &c. and become habituated to the exciting causes.

February 15th. Lecture 83rd. As 1433

Phyxia - is a higher grade of suspended animation than a trance. The operations of the mind are suspended, or forgotten - in a trance they are not. Dr. R. makes the distinction to consist in grade, or degree. Asphyxia is caused by violent emotions, &c. - by eating half-baked bread, after long fasting - Exposeure to intense cold - fixed air - drowning - intoxication, &c. Dr. Goodwyn has proved that death from drowning is not caused by the water entering the lungs; but by de-oxygenation. There is a spasm of the muscles which lasts until the body swims. Life, or at least a capacity for life, probably does not depart until then. A sagacious Cook of Philadelphia, informed Dr. R. that fowls which are killed suddenly, by wringing off their heads, &c. have the anus much contracted; which contraction continues for three or four days, - and when it relaxes is the time to cook them. Persons may be revived sometimes by making a noise in their Ears — Remember, says Dr. R. that life lingers longest in the Ears. They may also be revived by irritating tender, or irritable parts; as the pudendum, - and particularly the lips and nose. The nose may be irritated by a feather.

Dr. Physick revived a man who counterfeit-
-ed asphyxia, by dropping water from a vial
on his upper lip. Remember the punishment
used by the Inquisition; viz. dropping water on the
bare scalp. We must guard against violent
reaction of the system, which often takes place;
and prevent it by venesection. Diseases of
the Moral Faculty - are often owing to physi-
-cal causes; brought on by diseases; as Epilepsy,
&c. Vice is produced by morbid motives act-
-ing on the will, and exciting it into wrong
action. Idleness is the direct debility of the
mind. Bunyan says "An idle brain is the
devil's workshop". In this state of predisposing
debility, the mind is liable, and prone to be
excited into wrong action by any morbid
motives; especially such as bad Company
afford. The analogy holds good in every
point of view. Passions - are nearly as con-
-tagious as small-pox, or measles; and there-
-fore example is much better than precept,
in order to keep the mind in a state of
equilibrium. Those Studies which exercise
the Understanding are best to govern the
passions. Love - On this subject, see La Bruyere -
When in Excess, Love is a serious disease. When
it is successful, there are no bad Consequences;

but when unsuccessful, the worst effects sometimes follow,- as suicide, &c. David Ritten=house remarked, that when he was in love, although he was continually thinking of his sweetheart during the day, yet he never dreamt of her. In this case the excitement was worn down, by constant thought, below the point at which the object might appear to the mind, during the time of sleep. The Prince of Condé was cured of Love, by being bled and blistered for a fever! Travelling, and being among strangers, is a very good remedy. Ladies ought always to give an unequivocal and pe=remptory denial, when they wish to get rid of a suitor. Vide Lib. Ovidii Remediorum Amoris.

Fear - is attended with tremors; quick, weak pulse,- aphonia - syncope - and death. The fear of death, or rational fear, may be relieved by meditating on the cause of it. The disagreeable sensation becomes less and less so, until it ceases,- agreeably to one of the laws of sensa=tion. Company always dissipates fear; as we see in those who are publicly executed, &c. Music dissipates fear; hence its use in battle. Association, and familiarity with terrific ob=jects, prevent, or dissipate fear - hence the fearless character of Veteran soldiers. A horse will not start at a wheelbarrow, after being

fed on it. Counter motives, or impressions 
remove fear, - as glory in soldiers, &c. and a horse will not start at the firing of a gun, if it be fired the first time while he is engaged at eating.

February 16th. Lecture 24th. Grief - is implanted in us for wise purposes - it prompts us to seek for proofs of a future state of existence, in reason and revelation. Wakefulness generally attends grief; but sometimes sleep is induced, by the system being debilitated directly to the sleeping point. A Physician once had a little book printed for those families in which he lost a patient, - called the Mourner. We should always visit those families, in which we have lost a patient, very soon after his decease; for if we do not until the grief begins to subside, our presence excites distress, by association. Anger - has been divided into three grades - anger, rage, and fury. It is attended with bleeding at the nose - great volubility of tongue - stamping - swearing, threatning, &c. A person should avoid speaking when he begins to feel angry. That anger which is attended with weak morbid action, or fear, may be cured by opium, or drinking a bottle of wine.

Loud speaking increases anger. It is forbidden among the criminals in the new jail. Fatigue and thirst aggravate, or dispose to anger; and should be avoided by irascible persons.. Joy - caused thirst in Mr. Bruce, at the source of the Nile. Laugh=ter, when in excess, has caused death; it is cured by exciting counter-impressions, or pain in another part of the body. Envy and Malice are chronic diseases of the mind. Lust - is excited by idleness and a sedentary life. Female weavers are said to be subject to it, in consequence of the motion of their lower limbs. If matrimony be not practicable, use a low diet. It was removed almost intirely, in Dr. Stark, by living on bread and water; and returned by changing to bread and milk - and was very consider=:able by eating roast goose. The cold bath might be of service. Absence of the passions - is described by Homer. It occurs sometimes only in a state of derangement; and goes off on a recovery of reason. A salivation has procured a return of affection, as soon as the mouth was touched. This is a new doctrine; and Dr. R. has traced it without a pilot. ———

February 18th. Lecture 25th. Venereal disease - Sydenham says it is the province of God, and not of man, to punish the victims of this disease. Tenderness towards patients in this disease, is the best method of treatment; as we see in London. —

Gonorrhœa - is of two kinds - Benigna, and Virulenta. The G. Benigna is caused by difficult coition - wounds, - especially on the glans penis; as a scratch of a nail, induced it in a gentleman. Intermittent fever sometimes alternates with it. It sometimes occurs in that debility which comes on in old age. Sometimes it occurs in children during dentition. See Underwood. It is induced among the negroes of Carolina, by hard labor. It is often caused by onanism - and lastly, it occurs in the form of what is called Catarrhus Vesicæ. See Lieutaud. - G. Virulenta may be brought on by sleeping in an infected bed. Dr. Bond had such a case. A man revived the disease by wearing his old breeches, which he had worn while he had the dipeage. The poison may lay dormant a long time; hence women are said to infect, without having the disease themselves. The late Dr. Jones thought the disease might lay several years in the system; but Dr. K. believes it to be a symptom of gout, in such cases. G. virulenta is remedied by mild, demulcent drinks; as flax-seed tea, &c. Dr. K. has used the following Injection - Rp. Ungt. Mercurii (made without turpentine) ℥ij, the yolk of an Egg, some gum Arabic, and rub them together with four

or five ounces of water. This is a good injection; but becomes rancid in summer. In that season, Calomel rubbed down with gum arabic in water, is good. The best suppurative poultice that Dr. R. is acquainted with, is the Ley poultice, which he uses in cases of advanced bubo: In making which, he takes one part of Ley, two parts of strong beer, and q. s. of bread, - and when it is prepared, spread some sweet oil over it. A paraphymosis is often to be relieved by e= =mollient applications. Chordee may often be relieved by a dose of Laudanum, if proper evacuation have been previously used. Gleet is often curable by matrimony. - also by a Quack prescription of Corrosive sublimate, Spt. Cornu Cervi, Sugar of Lead, and water. Dr. R. says there may be a decomposition; but as it has done good, the good effects may be owing to that decomposition. There is a disease of the urethra, called by the French, Gonorrhea seche, or dry Gonorrhea; an irritation of the urethra without discharge. Here purges, Venesection, &c. will cure. Lues Venerea - is to be treated with mercury. Warts, &c. must be cut off as often as they appear. Attend to the state of the state of the system when salivation is necessary; for in cases of

great irritability, or debility, Opium, Bark, &c. should be premised. Sometimes a great deal of Mercury is taken without producing salivation; here the system is either below or above the mercurial action. In the former case, Opium, Bark, &c. will raise the system to that point, and produce a salivation without giving more mercury by rendering the dormant mercury active. In the latter case, Bloodletting, purging, &c. will accelerate a salivation, by reducing the system to the salivating, or spitting point.

February 20th. Lecture 86th. Cancer is sometimes seated in other parts than glands; as in the forehead, &c. Cancerous tumors are most dangerous on the lips. They are seldom cured when in the bowels, uterus, &c. But when seated in muscular, or unimportant parts, they are easily cured by extirpation. Cancers are generally attended with pain; but not always. Sometimes very painful tumors do not end in Cancer; And the worst Cancer Dr. K. ever saw, was not attended with one hour's pain: So that even this disease refuses to put on diagnostic and pathognomonic signs! Causes of Cancer. Compression, or bruises of glands, and schirrous

tumors. Dr. R. knew a case of Cancer /449/
induced on the forehead, by the patient
pressing that part, to ease a chronic
headache. Cancers are often caused by improper
treatment of old sores. Scrophula often ends in Can:
:cer. A man caught a cancer, by kissing a woman
who had a running cancer on her lip. Remedies-
much has been said about the evil of pain; But
we have only to lament that it does not attend
all diseases. It is sent for wise and good purposes.
If pain attended every disease from the com:
:mencement, we should have few fatal con:
:sumptions, or cancers. Cancers are to be prevented
by cutting off all tumors which may possibly
end in Cancer. Tumors on the face are gener:
:ally considered as Noli me tangeres, - and phy:
:sicians often tell their patients that if they will
let the tumors alone, the tumors will let them
alone. But Dr. R. thinks the advice has been the cause
of many fatal cancers. Those tumors ought rather
to be called Cut me outs than noli me tangeres.
Cancerous ulcers are best treated with arsenic. It
acts only on the diseased part. It is not powerful
enough to act on the sound parts; and therefore
produces a clean, healthy sore. When a cancerous
diathesis exists in the system, the patient should
live on a low vegetable diet - use occasional ve:
:nesection, - Narcotic vegetables, as Hemlock, &c.

When the system is weak, use tonics. As the [451] mind has great influence on cancerous ulcers, cheerfulness should be promoted as much as possible. We ought not to call the disease a confirmed Cancer, in the presence of the patient, if we can help it. It disheartens the patient, and counteracts the effects of the medicine. Rickets - come on with pallid countenance, tu=mid belly, &c. It is said to be owing to defect of oily matter in the bones, from a defect of the same matter in the aliment. Also to a deficiency of Earthy matter, &c. Remedies - Bloodletting, where the state of the system requires it: - afterwards Tonics - Change of situation, - especially where we think the Rickets are caused by, or are a misplaced fever. Cutaneous Diseases - Our first inquiries should be whether the disease be a symptom of gout, or any other disease. If it be, the remedies must be adapted to the original disease, or to the state of the system. The decoction of the Woods, Eupatorium, &c. are of service in cutaneous diseases. They increase perspiration, and induce new ac=tion in the Skin. Cutaneous diseases should not be cured in old people; or, at least, they should be cured with great circumspection.

An old man died comatose, from having a /453/
cutaneous disease cured. Where the disease is
attended with acidity of the stomach, it
should be corrected, and tone given to the
stomach. Elixir of vitriol has cured it, by giving
tone to the stomach. Washing the skin with
corrosive sublimate, has relieved it. Where
these fail, a blister on the skin, and after=
=wards the arsenic solution applied so as
to destroy a portion of the true skin. Pru=
=rigo- An itching of the pudendum has been
instantly cured by venaesection. Itching of
the rectum is often owing to ascarides;
in which case, the proper remedies must
be resorted to- When owing to other causes,
injections of cold water have relieved. ——
February 21st. Secture 87th. Tinea Capitis.
is cured by cutting off the hair, washing the head
afterwards with soapsuds, and then applying
a cataplasm, of powdered charcoal moistened
with water, over the head. Dr. R. has never
tried this, but it is said to be a valuable
remedy. Tar ointment, Unguentum citrin=
=um, &c. are useful. Morbus Pediculosus-
in this disease Lice occupy every hairy
part of the body. It was one of the plagues
of Egypt. It is cured by washing with a decoct=
=ion of Tobacco- and of Larkspur- this latter

is used by the Barbers in London. Ulcers [455]
are cutaneous diseases - They have been re:
:lieved by sticking-plasters - washing with
a decoction of walnut leaves - of Tobacco -
of digitalis - of peruvian Bark, &c - Burning old
dirty wool under the sore, so as to let the
smoke rise against it, is useful - it stimu:
:lates the sore. Washing the sores with a
solution of salt in urine is good. An easy
mind disposes them to heal. BURNS - when
recent, and attended with inflammation, they
should be treated with saturnine applica:
:tions, Unguentum Strammonii, &c. Local
Diseases - Of the Blood - The blood, when
drawn in different states of the system, ex:
:hibits different appearances. Dr. R. has seen
it of a Black color; owing to the presence of
black bile, in the disease called black jaundice.
Diseases of the blood are generally to be
cured by tonic remedies; and when owing
to defect of red globules in consequence
of disease, or depletion, Nutritious diet
is best. Deformity - is a disorder. It consists
in some portion of flesh, or bone, being out of place. The
lugubrious countenance of certain nations is owing
to solitude, or distress, &c. It is cured, or prevented,
by cheerfulness, society, &c. Diseases of Voice & Speech.
Paraphonia, or whispering, occurs after fevers and

Catarrh. Dr. K. has known a case to succeed Typhus fever, which never was perfectly cured. Aphonia has been cured by electricity, blisters, and salivation. Stuttering is a convulsive motion of the muscles of the glottis. It has been suspended by disease, and the return of it was the first symptom of convalescence. It has been cured by speaking slow, and by singing. It is sometimes caused by terror, &c. Dr. K. knew a case where stuttering was hereditary. The Lungs are sometimes disordered from being too large; thereby causing dyspnoea, &c. They are to treated according to the state of the system. How would it do, to excite an artificial tracheal fleet in bad cases of Cynanche trachealis? Diseases of the Urinary Organs - Calculus is the most common cause of disease. Dr. K. refers calculus to a diathesis, or action favoring the formation of stone. Stones often remain a long time in the bladder without inducing disease. Dr. K. knew a stone as large as a 12 pound Ball to be taken from a Mare 18 years old, which had not been diseased but 2 or 3 days before her death. This, however, was owing in part to the horizontal position of the bladder. In men the case is different. Calculi are found in every part of the body - on the teeth, in the joints, muscles, bloodvessels,

blood, semen, saliva, &c. Remote causes of stone, are mucus, &c. in the bladder. Dr. R. does not deny that stone may be formed without a nucleus; on the contrary he thinks it is, sometimes. Long standing predisposes to stone; hence those noblemen who stand constantly in the presence of the King of Spain, are very subject to it. Franklin induced it by retaining his urine too long. Newton by hard study. He had it so bad, that his urine constantly dribbled on his leathern covered chair, and corroded it. Where the stone remains long in the bladder, and irritates it much, it causes a thickening, and sometimes even schirrus and cancer of the bladder. The substance of stone has been supposed to be of a gypseous nature, by some - by others to be like tartar, &c. But Dr. R. thinks it is of an inflammable nature; of an oily, or animal nature. Early venesection is very good in this disease. In the paroxysm, Vsection pro re nata, lenient purges, as castor oil, &c. Between the paroxysms, many remedies have been used. They have been supposed to dissolve the stone; but Dr. Lempriere found that they scarcely dissolved the stone out of the body, - and not at all, when mixed with urine.

The bladder has become insensible to the calcu:
:lus after many years; and hence it has been sup:
:posed the stone was dissolved. It is upon the
same principle that the system is said not
to be susceptible of gout, after having had it
for 30 years. The system becomes insensible.
Dr. Franklin found benefit by taking Black-
-berry-jam, and other syrups, for his Calculus.
They acted as anodynes. The patient should
avoid all irritating causes.

February 22nd. Lecture 88th. The nuclei
of Calculi are, generally, a red globule of blood,
a portion of coagulable lymph, &c. The
treatment of Calculus divides itself under
two heads - during the paroxysm, and during
the Intermission. In the paroxysm, bena:
:section, &c. - during the intermission, certain
saline medicines, as Carbonate of Soda, and
of Potash, &c. and Astringents, as Uva Ursi,
&c. Applying cold water to the back, &c.
The great art lies in using those medicines
when there is no pain, or paroxysm present.
Suppression of Urine - To be treated with
venaesection, Cathartics, warm bath, &c. Some:
:times in suppression, there is no urine
in the bladder, owing to pressure on the
ureters, &c. Here Venaesection, Warm bath,

friction, purges, &c. Sometimes suppression [463] occurs from overdistension, by retaining the urine too long- here Dfection, purges, warm bath, Laudanum, &c. If these fail, use the Catheter. In cases of suppression from a paralysis of the bladder, Cantharides are said to be good. Diseases of the Heart. Polypi, &c. To be treated by Dfection, and suitable Regimen to prevent commotion in the system. Diseases of the Brain & Nerves. Excess of sensibility has been called super-sensation. We want a word to express an excess of irritability. A case of morbid sensibility in a Lady, was treated to advantage by means of frictions, salivation, and tonics. Dr. R. tried vaccination, in consequence of the opinion held by some that it cures other diseases; but without effect. The patient could not bear her nails cut; and they were eaten down by sulphuric acid. In a case of morbid Irritability of the nervous system, a Gentleman could not face company without trembling. He was much relieved by the warm bath and tonics; particularly steel. Mobility has been relieved by applying Van Swieten's Bandages.

Diseases of the Eyes - Squinting is owing to irregular action of the muscles of the eye. Use Barnacles, or make the child read small print. Stimulants may be applied to the eye to strengthen the muscles. Near-sightedness is caused, sometimes, by the use of sight upon near objects; as in watchmakers, &c. It is said that Presbyopia may be relieved by washing the eyes with spirits in which thyme, rosemary, &c. have been infused. It procures a fulness of the eye. Amaurosis, or Gutta Serena is caused by fevers, coughing, &c. avoid reading very small print; and vary the size of the print. Avoid going out in Sunny days when snow is on the ground; or wear green spectacles. It is said Nature abhors a vacuum; - it might be as truly said, that the muscular fibres of the body abhor universal rest; for some part must be in action, - and the action ought to be varied in the muscles. Deafness - is owing to a variety of causes. Deafness, or hardness of hearing, in old people, is a tendency to palsy. Death from old age, is an universal palsy, which first begins in the

eyes and ears, and extends to all the other senses & parts of the body. When deafness is owing to costiveness, use gentle purges, &c. In the use of these general remedies, the state of the ear itself should not be neglected. When it is owing to tumors in the ear, use injection, purges, &c. When owing to relaxation of the drum of the ear, tonic injections should be thrown into the ear. A Lady could only hear when a loud noise existed, - as during the beating of a drum. The drum gave that excitement which was necessary to hearing; it raised it to the hearing point. Dr. Johnson could hear best when in a coach rattling over the stones, from the same cause. The Inhabitants near the Cataract of the Nile cannot hear well when removed from it. Sometimes deafness is removed during disease; as in a deaf man who could hear when he was in a paroxysm of mania; and his friends could tell an approaching fit, by the partial recovery of his hearing. Dr. K. has put a little fine salt in the ear, with advantage, when he suspected wax, dryness of the ear, or paralysis. He puts it in at night, and stops it in with cotton. Sir Jn. Pringle

said deafness was oftener caused by wax than any other cause. Tinnitus Aurium is owing to a convulsive motion of the bones of the ear. It is attended with a humming noise - a noise like the firing of cannon, &c. Wear wool, &c. in the ears.



February 23rd. Lecture 29th. Diseases of the sense of Smelling - it is diseased by Catarrh, &c. When owing to catarrh, Vsection and purges will relieve it. Taste - is often diseased. There are bitter, saline, and smoky tastes in the mouth. They are to be cured by Emetics, tonics, &c. The sense of Touch is sometimes diseased in fevers. This sense is often peculiarly delicate, from idiosyncrasy. A young gentleman could not bear to touch a peach. It is to be cured by resolution. Sense of Heat - This sense resides in, or belongs to the sense of Touch. It is remedied by a white dress, &c. The Spaniards remedy it by wearing a great Coat. The Turks, by wearing a Turban. Indians, when hunting, or marching to battle, do not drink in the forenoon. Water that has stood until it becomes a little warm, though not so agreeable, will much more effectually quench thirst than cold water.

When you have nothing to do, the best [471]
way to avoid the sense of heat, is to sit
still. Large rooms are the coolest. St Paul's
Church, which is the largest room in
London, is 8° cooler than any other in
that city. When disease is induced by
heat, bloodletting is very good. We cannot
avoid solar heat; but we can abstract
another stimulus - and Dfection is a
fine cooler - It should not be used, how-
-ever, if the system be prostrated below
the point of reaction. Pediluvium; the
warm bath, is a fine remedy for excess
of heat. The effects of Cold should be coun-
-teracted by full meals - socks over boots - when
riding on horseback, put tow round the
stirrup irons. Washing the feet often in
cold water, renders them hardy. Eat often,
and wear fur gloves, &c. Remedies for excess
of cold, or diseases from cold - Cold water;
it feels warm to a frosted person. Mr. Van-
-dyke preserved himself and a ferryman
by putting their feet to each others breasts,
when detained on the Susquehanna by ice.
Diseases of Children. Tongue-tied children
may be relieved by cutting the ligament, when
about 3 months old. Red gum, or red spots

on the body - is never a fatal complaint
Spina Bifida to be treated with Caustics,
& setons. Milk in the breasts of children
ought to be repelled by discutient plasters
or liniments. A bad tumor was once
made by pressing the breasts; it should
not be done. Belly-ache is cured by al:
:kaline and anodyne remedies, Animal
diet in the nurse, &c. Costiveness may
be cured by a pap made of indian
meal, &c. Paraphymosis, cured by cold ap:
:plications, taxis, &c. Prolapsus ani must
be reduced by means of a cloth, warmed,
and anointed with some mild ointment.
Tumors on the scalp will generally go
away of themselves. Children are often
hurt by falls. They should always be
taught to creep before they walk. Injuries
of the head, should always be attended
to. It is surprizing how little they suffer
from blows on the head, while the skull is
cartilaginous - a child fell out of a two
story window, and was not killed. For
diseases of the hip joint, bleeding, low diet,
rest, &c. should be used. It is a kind of Rheumatism.
Children often swallow substances
which are indigestible, but are seldom
injured by it. A child in Connecticut
swallowed a nail without bad consequences.

For an account of Cholera Infantum, see Dr. R's works. He only adds here, that he has often found venesection useful. In every dis:ease of children, attended with fever, & strong morbid action, the nurse should live low; and the child should also be regulated in its sucking. This has long been done in small-pox; but scarcely ever in other dis:ease, although just as necessary.

February 24th. Lecture 90th. Worms. There is but one pathognomonic sign of worms, and that is the discharge of them! Dr. R. has known all the others to fail; or at least, he has prescribed for all the other symptoms without discharging worms. The remedies for worms are mechanical and chemical. The mechanical are Calomel & Jalap, or Rhu:barb, Tin, &c. The chemical are certain vegetable substances, as sugar, molasses, cab:bage tree syrup, certain saline substances, as common salt, nitre, in the form of gun powder, &c. In chronic diseases from worms, common salt, and rust of iron, is very good: But in acute cases, Calomel and Jalap, &c. Calomel acts both chemi:cally and mechanically. All children are fond of three things; sugar, ripe fruit, and salt. Sugar is very good; and children

should be allowed to eat it. The foregoing remedies are chiefly adapted to the Lumbrici. Tænia, or tape-worms, are treated with the same chemical and mechanical remedies as the round worms; but in much larger doses. The Tænia should be swamped in mechanical remedies. A man in New York, now living, discharged first 13 feet of Tenia, by taking filings of iron - and afterwards 200 feet - and he still has some of the fragments of this monster in his bowels. Tenia appears to be hereditary sometimes. A woman who had Tenia, brought forth two children who were affected in the same way. Ascarides may be cured by injections of camphor, tobacco smoke, &c. It has been said that prescriptions for children were all at random; but it need not be so. We should observe the state of their systems. They stand a better chance of life than adults, because they are not subject to such mental affections as are injurious. Diseases of Old Age - Old people are affected with Rheumatalgia, or what are called pains in the bones - chilliness, &c. &c. Warmth is essential to old people. The old romans always went to a warm climate. Dr. Chovet slept in a baize nightgown, under 8 blankets and a coverlet. He died

of an acute Hepatitis, and was so sensible to heat that he could hardly bear a sheet on him. Venereal pleasures should be indulged in sparingly, after 60 years of age. Occasional venesection is very useful to smooth the passage down the hill of Life. Death from old age, is occasioned by the extinction, or exhaustion of excitability; and is without pain. Diseases of Women. At the time of the cessation of the menses, proper bloodletting will generally prevent the disorders of Schirrus, dropsy, &c. Leucorrhœa might in some cases, when profuse, be called a phthisis uterina. There is a thin serous, viscid fluid discharged. When it is a general disease, use Tonics, as porter, Bark, Chalybeates, &c. Diseases peculiar to pregnancy. Breeding sickness is best relieved by gentle exercise and fresh air. A constant action should be kept up in the stomach by small portions of solid diet, as biscuit, &c. Toothache often occurs. It has been supposed that extracting the tooth would cause abortion; it is no such thing. Toothache is often a symptom of conception. A Lady had the first hint of Conception from an involuntary discharge of urine. Convulsions near the time of delivery, were formerly generally

fatal; but they are not so now. Venæ 401
section should be very copious - say 50 ounces. Dr. Hamilton drew 150 ounces with great success. Avoid the use of Stays. Sore nipples are prevented by gently pulling them for a while previous to delivery. It is a valuable practice; as it hardens them and keeps the lactiferous tubes open. After delivery, the woman should wear a broad bandage, in order to prevent a pendulous belly - especially after having several children. Milk fever is prevented by drawing the breasts, or letting the child suck, and by the use of gentle laxatives.

February 25th Lecture 91st. Diseases of Negroes - The Yaws is an african disease; it sometimes affects white people. For a description of it, see the 6th. volume of the Transactions of the London Medical Society. - It is communicated by contact of the skin. It rarely affects children. It is treated by mild vegetable and animal Diet, warm bath, vapor bath, Mercury as an alterative - Inoculating for the small pox, is said to have cured it once. After the system is impregnated with mercury, and the disease is on

the decline, the volatile tincture of 
guaiacum has done great service.
Violent sweating Medicines have cured
it. A negro Boy was cured of the yaws by
laying him in a running stream, and
scrubbing him with corn brushes until
the scabs were rubbed off, and the sores
all left clean. He was then rubbed all
over the sores, with a mixture of pow-
-dered scales of Iron and expressed lime-
-juice, made into the consistence of a
syrup. With this syrup he was anointed
with a feather every 3 or 5 days; and
was soon a smooth, healthy, likely
fellow. A Lady was cured of a chronic
rheumatism in the arm, by a shock
of lightning, after artificial electricity
had been used in vain. The inference
is, that we are to use Electricity more pow-
-erfully than we do. The falling off of the
skin has been cured in negroes by a
generous diet, &c. Dirt-eating, called pica
by nosologists, is much like Hypochondriasis;
is caused by bad treatment, &c. There is
no acidity in the stomach. The remedies
are the same as for Hypochondriasis.
Diseases of the Organs of Generation.
of the Male - Impotence - is of two kinds;

Congenial, from malconformation; /485/
acquired by excess in venery. Onanism
is the most frequent cause. Vide Tissot
on Onanism. Nocturnal pollutions, semi-
-nal weakness, are cured by local cold
bath. Lax state of the bowels, &c. Tying
down the penis with a soft thread, so that
an erection cannot take place; for an emis-
-sion can only happen during erection. Dr. Stolk
of Vienna, says he has cured many cases in
this way. Matrimony is an useful remedy.
Impotence is oftener caused by onanism than
any thing else. In Females. It is said that
Barrenness is cured in some domestic ani-
-mals, by irritating the vagina, by inserting
the pod of a red-pepper. From the opinion
of Dr. R. that the menses render females
more susceptible of conception, by in-
-creasing the excitability of the parts, this
fact seems probable; and perhaps arti-
-ficial irritants applied to the vagina of
the human female, might be of service
in cases of Barrenness.

February 27th. Lecture 92nd. This Lecture
is a recapitulation of the one formerly given
on the Pulse. Dr. R. rejects no sign, or symp-
-tom of disease; but hopes his pupils will
be distinguished for their knowledge of, and
predilection for the pulse, as an index of

morbid action. The arterial system [487] may be compared to the sensitive plant; by touching one part, the whole plant is affected: Or more properly, it may be compared to the Bells which the Priests formerly wore; by touching one, they all rang. This is illustrated by the affection of the arterial system in aneurism, - and from a case in which the diameter of the aorta was diminished by pressure; the pulse was affected throughout the whole arterial system. These facts prove the sympathy, or connection of the whole system with a part. Are the stomach and upper bowels inflamed? The pulse is small and tense, - because the arteries of those parts are small and confined in their action. Is the fulness, &c. of the pulse observed to accord with the size of the vessels of an inflamed part in every case? It certainly is the case in affections of the Brain lower bowels, kidneys, &c. - In these cases the pulse is fuller, because the vessels of those parts are larger and fuller. If this rule do not hold good in inflammation of the eye, and of the joints, it is because the large vessels in the neighboring parts are also affected. But the whole system does not always harmonize with a part; Yet, like the variations of the

compass, these deviations may be [489]
understood; and instead of misleading, may
serve to instruct us. As a proof that the
system does not always harmonize, we
see in cases of morbid action, heat, &c. in
the head, there will often be a defect of
action, and coldness in the feet. The ar-
teries are here like a cracked bell, or
one with a cord round it. Dr. R. wishes
it never to be lost sight of, that in old people
the pulse is fuller, slower, and more tense
than at any other age; and also more
irregular, and sometimes intermitting:
That it is quicker, or more frequent, in
women than in men, and also in new-
comers to warm climates. It is slowest
when laying on the back - quicker when
laying on the side - still quicker when
sitting up - and quickest when standing.
Sitting up is exercise to an invalid; and
standing is labor to him. This fact should
be attended to. The pulse should not be
judged of immediately after coughing, &c.
A preternaturally frequent pulse was
cured by a fever. The frequency was owing
to an irritability of the system which
the fever removed. Morbid pulses - A
morbid frequency is owing to irritability.

Morbid slowness is owing to 3 causes; 1. pressure on the brain. 2. spasm of the heart - 3. defect of irritability. The depressed pulse is sometimes no more frequent than natural - sometimes it is slower. It occurs in pleurisy - inflammation of the stomach and bowels, &c. It is always tense; i.e. there is always a stroke now and then, which gives a jerking sensation. In the natural pulse, in malignant fevers, the danger is to be estimated by other symptoms. In palsy, the pulse is fuller and slower on the diseased side. Dr. Zimmermann says he saw a case in which there was an odd of several pulsations. The aneurismatic pulse is full, tense, and gives a jarring sensation to the fingers. Dr. Brown says hardly any man dies, who does not carry excitability enough to the grave to have lasted him 40 years; and Dr. R. thinks so too. When we cannot examine the pulse correctly at the wrist, the temporal artery should be examined. Dr. R. thinks any young man of common capacity may learn to know the pulse. Several nurses and Ladies in Philadelphia have learned it. A French Physician has said that he could tell by

the pulse, whether a disease were situated above or below the heart. Dr. R. thinks that he has been able to do it, in some instances; but wants more experience on the subject. It merits attention.

February 28th. Lecture 93rd. This is a recapitulation of the first Lecture on Pathology. The Final Causes of disease, are a knowledge of Anatomy, Chemistry, &c. the exertion of benevolence - the due appreciation of the pleasures of health - a reconciliation to death, &c. Pain gives vigor and activity to the mind; it impels us to seek for remedies for our diseases, and induces us to quit such occupations as occasion pain. Causes of disease. The remote, predisposing, and exciting causes often act all together, or nearly so. Sometimes the predisposing debility is so great, that the natural stimuli become exciting causes of disease; as the operations of the mind, &c. Stimulants, to a certain degree, give tone, or strength; but beyond that, they overset the system, or bend it; inducing Indirect debility. A great degree of stimulus, suddenly

applied, induces indirect debility, fol- 
-lowed by increased excitability: but mod-
-erate stimulus, greater than natural,
and continued a long time, wears out
the excitability, and occasions obstruc-
-tions, or disorders, without previous
disease. Indirect debility is the con-
-necting link between health & disease.
Direct debility is the predisposing con-
-dition of the body. Dr. R. proposes to
call direct debility negative debility,
or an abstraction of strength; and in-
-direct debility he proposes to call
positive debility, or debility from
excess of strength, or stimulus. Indirect
or positive debility, may be known by its
causes; and when we feel its effects we
should pause - we are then in the
threshold of disease. In this state, which
is attended with a sense of weariness, sore-
-ness upon motion, languor, dry, or cold
hands, languid pulse, &c. we may prevent
disease from forming by pediluvium,
warm teas, and other gentle stimuli.
In chronic diseases, patients should be
sent to warm and equable climates.
Disease consists in morbid, not excessive

excitement. Disease is always partial. In a fever which is not mis-placed, i.e. a fever which is confined to the bloodvessels, the disease only exists there. In misplaced fevers, the disease exists in various parts, - as in the brain, in mania; bowels, in dysentery, &c. - but it is never universal. The healing art consists in equalizing this excitement. In inflammatory fever the muscles are very weak - why so? Because the excitement is abstracted from the muscles, and accumulated in the arterial system: and this excessive excitement is invited there by previous debility. It is discharged there from the other systems of the body, similar to what takes place in the discharge of a cloud charged plus with Electricity, into a minus cloud. Brown's Asthenia is Dr. R's. predisposing debility. Dr. R. does not admit of asthenic diseases; they are all more or less sthenic, or morbid. Dr. R's. Theory of disease resolves itself into a chain of four links; viz. 1. Predisposing, or negative

debility - 2. positive debility; or the forming stage of disease - 3. The applica=
=tion of an irritant, or an exciting cause -
and 4. Irregular, or morbid action, which
is the proximate cause of disease. Finally,
Obstructions, or effusions, called disorders,
which are the effects of disease. This
theory applies to moral Evil, or diseases
of the mind. Idleness is the direct, or
negative debility of the mind. Excessive
mental action induces positive debility.
Temptation is the irritant, or exciting
cause of morbid action, or vice. Moral
evil
^is likewise always partial; for no
man is so good but he has some vice,
nor none so bad but he has some
good property. Morbid action appears
in different forms and grades. When
excessive stimuli are suddenly applied
to such a degree that the system can=
=not react, suffocated excitement
is produced. The system is depressed
below the point of reaction. In this
case, the abstraction of a small degree
of stimulus admits of reaction tak=
=ing place, and the symptoms be=
=come more violent. Thus in a Colic

of this kind, one bleeding will in- /501/
-duce inflammation, by relieving the bloodvessels - and the patient will ap-
-pear to be worse. This is the first step towards a cure. The vessels are relaxed, or reduced by it, and inflammation comes on. The bleeding must then be repeated, to reduce the vessels to a healthy action. Is disease an Unit? Then why not use the Lancet in ex-
-cessive action of the arteries of the Brain, &c. as well as of the pleura? Does the production of a new disease prevent, or remove one in another part? Then why not induce a safe mercurial action in the mouth, to prevent or cure disease in a vital part, - as in the Lungs, &c.?

February 29th. Secture 9 4th. When stimuli to a certain degree act suddenly on the system, the strength will be increased; hence patients often declare that they felt better than usual, just before their sickness. But if those stimuli be applied gradually and continued, the excitability will be expended. Suppose the excitement to be at 40 in the morn-
-ing, - at noon it will be raised to 50 - and

at night it will be worn down to 40 again: /503/
Hence diseases oftener attack at those times than at noon,- especially at night. When stimuli act suddenly, they convert excitement into excitability; and this by a continued action of the stimuli is wasted. Debility is an unit; but it may be induced by opposite causes. Thus we are in the same state of debility in the morning and evening; but from opposite causes. Indirect debility is the connecting link between direct, or predisposing debility, and disease. A person in a state of direct debility may use exercise moderately, (and many are in this state all their lives,) without injury; but one under indirect, or positive debility cannot exercise or apply stimulus without inducing morbid action,- for he is in the threshold of disease. By attending to the tone, or exhilaration which results from the application of stimulus, we may learn to prevent the system from running into indirect or positive debility. Persons laboring under direct, or predisposing debility, often prevent disease by using moderate exercise. In this way the excitability is gradually expended, so that

nothing is left for an irritant to act upon. This is often seen to be the case with soldiers, nurses, &c.- But as soon as they cease to exercise, excitability is accumula:ted, and disease is induced by the action of irritants upon it. In that state of debility in which irritants act to induce disease, it is not necessary that the irritant should be applied to the weak part of the body- It may be applied to a healthy and strong part; from whence its effect will be trans:mitted to the weak part: For the electrical rod does not more certainly invite electri:city from a charged cloud, than debility does the excitement from a part laboring under excessive action. From this we may explain the fact, that those who have had ulcers that have not healed as firmly as the other parts, are affected with abscess in those parts during the prevalence of malignant fevers. Equable excitement is health. When a person is seized with malignant fever, his bloodvessels are very highly excited- even depressed- while his muscles are so weak that he cannot sit up. One bleeding will restore so much equilibrium that the patient can first lay on his side, then sit up, and even get up on his feet. Nosology is injurious to the practice of physic. Never wait for

the evolution of pathognomonic signs. Never, never will our art be perfect, until we can detect and cure diseases in their forming stage - and never can we do this until we believe in the unity of disease. Nosology is only useful as a register of symptoms. It would be better to call it Symptomatologia. But in rejecting nosology, it is requisite that we should pay great attention to the symptoms and force of disease. We learn the force of disease by considering the force of the remote, predisposing, and exciting causes. Dr. R's. Theory will increase our care and solicitude instead of diminish it, as has been alleged. It will place us in the situation of a Mariner in a Latitude where the winds are always varying, and the sea turbulent; We shall have to watch the compass continually, and reef or unfurl every hour of the day and night. A slight disease should be more attended to during an Epidemic than at other times; and the Convalescence also requires more attention at such times.

March 1st. Lecture 95th. Dr. R. will illustrate his principles by applying them to the treatment of fever. This

disease is improperly called fever. It [509] consists in morbid excitement, or action. This morbid excitement sometimes kills without leaving marks of inflammation; as in malignant fever, Colic, Dysentery, Hydrocephalus Internus, &c. &c. Here the disease transcended inflammation; but something must have caused death, and that something was morbid excitement. There are Eleven primary forms of it.

Predisposition to Fever. Suppose the healthy point of excitement at 50. If a stimulus be applied so as to reduce the system to 40, indirect debility is induced; and the system only waits the co-operation of an exciting cause, or irritant, to be excited into disease. This predisposition exists in the inhabitants of all cities during the prevalence of malignant Epidemics. In this state, the patient should live low, or temperately, - keep the bowels lax, and wear such clothes as favor diaphoresis - and particularly avoid all exciting causes. In this of predisposition, many symptoms of such state appear; as the breaking out of old sores, rash, sweats, &c. In the forming stage of disease, it may be prevented by going to bed for 24 hours, or so - or by

laying bye. Macklin, the Player, al-
-ways went to bed, and refused to see
company in the forming stage, which
he knew by the premonitory signs- &
thereby escaped disease through life.
In this state, when the patient feels
sore upon motion,- languid,- has a little
headache when sitting up, &c;- All these
symptoms are removed by laying down,
and using gentle stimuli;- as warm
diluting drinks- a little Laudanum, &c.
And when the disease is nearer form-
-ed, and a little morbid action exists,
gentle evacuants,- as a cathartic, or
a small bleeding, will remove the
symptoms. If this were attended to,
and diseases were thus attacked, we
should hardly ever have fatal cases
of Yellow fever, or even Plague.

March 2nd. Lecture 96th. As many dis-
-eases which are now cured, would have
proved mortal without the aid of a phy-
-sician, it proves their utility; but there
are many diseases yet, which are fatal
notwithstanding the efforts of Medical
men. Death, however, is not unattended
with advantages. If every person arrived
at old age, it would give rise to many evils.

The Sciences are said to be a Circle; [513] and Medicine is only a segment of it - If the other segments do not go hand in hand with it, Medicine will often be beaten in the unequal contest. As they do not go hand in hand, men will still die at different ages, and with pain; and it is the duty of Phy:-sicians to smooth the passage out of Life. Lord Bacon proposed the question whether in incurable diseases it would not be proper to give such potions as would instantly extinguish life? But Dr. R. says by no means: Neither should we ever give over our Patients. Death however, is not necessarily attended with pain. It is not in Apoplexy, Epilepsy, those Convulsions which attend fevers, death from cold, &c. Where the facul-:ties of the mind are unimpaired, the pain is often exquisite. Remedies for those pains - Venasection, in incurable diseases, has done much good. Abstinence. a man prepared himself for the rack, by fasting two days. Blisters - In cases of inanition, where the pulse indicates it, give nutritious food. But where the symptoms will admit of it, the main remedy is Opium. It has been long

resorted to by patients and Physicians, in desperate cases of Pulmonary Consumption. But it should not be confined to one disease. It would be of service in desperate cases of Cancer, stone, Hypochondriasis, &c. &c. Sweet oil relieves pain - it is used by inunction - St. James hints at it. The position of the body is of importance. When the patient is very low, he should lay on his back; and should never be raised to go to the close stool. Even turning on the side has proved fatal. This fact was noticed in speaking of low fevers. Men die best in company; but near and dear friends often aggravate the pains of death. The patient should be informed gradually & delicately of the fatal nature of his case; and not by the Physician, unless asked by the patient. Those remedies should be aided by religion. A clergyman is often of service. We should draw the articles of the Materia Medica not only from the animal, vegetable, and mineral Kingdoms, but also from the Kingdom of Heaven. Dr. Rush here concluded his Course; and bade his class Farewell.



The End.

# Appendix.

## Lecture on the Pulse.

I shall divide my account of the pulse, says Dr. Rush, into three parts. In the first, I shall consider it in its natural or healthy state;- In the second, in its morbid state, as it varies in diseases;- And lastly, I shall conclude with the mode of acquiring a knowledge of the condition of the system from the state of the pulse.

I. Of the pulse in its natural state. The pulse of an healthy adult, in this country, is between 60 and 80 strokes in a minute;- The medium about 66.- Many circumstances influence the frequency of the pulse:- 1st. Age- The pulse in a newborn infant beats from 120 to 140 strokes in a minute. From birth to one year of age, it varies from 100 to 120. In the second year, from 90 to 120. In the third year, from 80 to 110. In the fourth, fifth, and sixth years, from 80 to 100. Between the sixth and twelfth years, it varies from 72 to 90. After the twelfth year, it suffers but little change, and

is nearly the same as in adults; viz. from 60 to 90. As a person grows older, the frequency continues to diminish somewhat; but the most singular cir=cumstance in the pulse of an old man is its irregularity. It is slow, intermitting, full, and sometimes even tense. In many, it beats but about 40 strokes in a minute. In some, not more than 30 - and in one old person in Philad$^a$ it is but about 26. Indeed, old people never have a regular pulse, except it be diseased. - 2nd. Sex has an influ=ence on the pulse. It is more frequent in women than in men. - 3rd. The state of Society - the pulse is much more frequent in civilized people than in savages. Savages want the numerous stimuli of Conversation, &c. &c. which civilized people enjoy: hence also, country people have a less frequent pulse than the inhabitants of cities. They want the same stimuli, - or have them in less degree, than Citizens. The state of Society has so great influence on the pulse, that I think, says Dr. R.

it would be possible to distinguish the natives of different countries by the pulse. 4th Size influences the frequency of the pulse: it being more frequent in short than in tall men. 5th. Trades, occupations, &c. exert an influence on the pulse; and I think in proportion to the stimuli necessarily attendant on each of them. I think we might almost tell a man's trade, by feeling his pulse. 6th Climate. In cold climates the pulse is much slow=er than in warm ones: Thus in greenland the pulse is about 40. Season also al=ters its frequency. It is more frequent in summer than winter 7th. At differ=ent times of the day, the pulse varies in frequency. It is slowest early in the morning - quicker after dinner - at bed-time, again, it is generally slow: But various occurrences in the course of the day, affect the regularity of these changes of the pulse. 8th. The pulse differs in fre=quency in the sleeping, and waking states. It is 8 or 10 strokes slower in sleep. 9th. Different positions of the body - The pulse is slowest when we lay on our

backs - quicker when we sit up - and quickest when we stand erect. 10th. Different positions of the arm, when we feel the pulse, will cause a very great difference in it; which depends on the greater or less pressure on the artery, by the weight of the body, pressure of the bedclothes, or action of the muscles of the arm. Always feel a patient's pulse when the arm is in the most natural, easy position, and freest from all kinds of pressure. 11th - Food & Drinks quicken the pulse. 12th. The passions and Emotions of the mind quicken the pulse; Except the sedative ones of grief, fear, &c. Anger increases it to 104 strokes. 13th. Conversation accelerates the pulse; hence you should never commence conversation with a patient until you have felt his pulse. 14th. Exercise of all kinds quickens the pulse. Thus, the pulse that beats 64 strokes while a person is sitting, will beate 68 if he stand erect - 70 if he walk at the rate of two miles an hour - 88, at the rate of four miles an hour - and if he run smartly, it will increase it to 140 or 150. -

Beside the above causes there are many others, which either increase or diminish the frequency of the pulse; but these are less easily explained. The situation of the artery at the wrist often varies, also. It is sometimes situated near the thumb. This you must beware of. We ought, by right, to know the natural pulses of our patients; for scarcely two people have them alike, even in health.

**II.** We proceed next to observe the alterations made in the pulse by dis=ease. These are, First, in frequency & quickness; by frequency is meant the number of strokes in a given time; e. g. a minute: By quickness, the time in which each stroke is performed. The pulse varies from health in quickness and fulness; as in the first stages of Yellow Fever, and other acute diseases. Here it varies from 60 and 80 to 100, & even to 200 - and falls in some diseases to 40 - 30 - 20 - in one or two cases to 9 - and in one case Dr. R. knew the pulse to fall to the awful number of 7 strokes in a minute. The quickness is probably caused by an irritable state of the blood vessels: They contract

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more quickly by the stimulus of the blood. This irritability Dr. R. conceives to be induced by the stimulus of miasmata; hence it occurs in intermittent and yellow fever. This circumstance in some cases gives rise to the intermitting pulse. This pulse is where there is a cessation, for a certain time, of pulsation, after every first, second, or third stroke; and frequently occurs in malignant fevers. Secondly - The pulse varies from health in regularity and force. This is of more consequence than variation in quickness, frequency, and fulness. In some cases, the idea received from feeling a pulse, resembles that by feeling a shattered goose-quill. - I shall proceed to notice the different states of the pulse as they occur in diseases. —

1. Synochus - This pulse is full, frequent, quick, and not hard. It occurs in almost every Bilious fever - in the first stages of yellow fever, where the system has not been debilitated by bleeding. —

2. Synocha - a full, frequent, quick, and tense pulse; such as occurs very often

in yellow fever, and also in the gout.
3. Synochula – A frequent, quick, and tense, though a small pulse, I have denominated synochula – a diminutive of synocha. It differs from the other in the volume of the artery. It often occurs in remitting fevers. ———
4. Typhus – This, though frequent, and quick, is weak and not tense. It occurs principally in chronic fevers; especially of the nervous kind. ———
5. Typhoid – This is a little fuller, and more tense than typhus. ———
6. Synochoid – This pulse is between the typhoid and the synocha, or rather synochula. ———
7. Locked pulse – resembles that of an old person, except that it is, in general, rather quicker. It beats 30 or 40 strokes in a minute. It occurs only in highly malignant fevers, as the plague, Yellow fever, &c. In Jamaica it is common – produced, I believe, by the action of miasmata. It is resembled first, by the pulse of an old man – secondly, by a pulse

reduced by bleeding and purging - and thirdly, by the pulse which occurs in inflammations of the stomach and bowels, - though it is more tense & chorded than the last. ——

8. Catgut, or Chorded Pulse - This pulse is small, quick, and frequent. It strikes the finger forcibly; so as to convey the idea of resentment. I have called it the sulky pulse. It occurs in violent cases of yellow, & malignant fever. ——

9. Hectic pulse - is quick, and frequent; often full - it partakes of typhoid and synochoid. It occurs in chronic fevers, - as Phthisis Pulmonalis; from which it can only be distinguished by a knowledge of the history of the disease. It occurs also in gout, waste of the body from atrophy, and the like. —— Lastly, Gentlemen, there is in our list of morbid pulses, the Natural, or Healthy Pulse. A pulse that is quite natural, in violent fevers, is one of the worst symptoms that I know. It occurs

in the most malignant yellow fevers. It can only be distinguished from a good pulse, by other symptoms of the disease. There are three natural appearances which are bad symptoms-viz. a natural pulse-a natural skin-and a natural tongue.-

Authors make many other states of the pulse; but I believe they are all included in those I have mentioned-Unless it be the oscillatory, undulatory, or vermicular pulse. This cannot be well described; it is a succession of pulsations, one rising above another like the waves of the sea. There is also the dichrotes? or insidious pulse: or, as I have called it, the hobbling pulse.-These, Gentlemen, are of no consequence: the force of the pulse is of infinitely more importance. The last pulse abovementioned, occurs in palsies, and dropsies of long standing. Two kinds of pulse are common in dropsies-The first, is a small, contracted pulse; which occurs in the beginning of them-The second, a weak, low pulse, after all morbid action has subsided, and debility remains. In the former, bleeding should be used. Before I con-

clude, I shall mention a pulse that occurs only in aneurisms. If you once feel the pulse, you will never forget it. It gives the fingers a disagreeable jar, which will be remembered a long time. Together with the aneurismatic pulse, I may also mention an absence of pulse. A totald absence of pulse occurs often in violent affections of the stom=ach and bowels. It lasts often for hours. I have known one Lady to continue without pulse for 36 hours, in conse=quence of eating some oysters. This Lady has since recovered, and been quite well for many years.

III. I shall next give you some di=rections for acquiring a knowledge of the State of the pulse. 1. Never feel the pulse of a patient the moment you enter his room. Your presence, at first, excites hope, or fear, or some emotion in his mind, which has an influence on the pulse. If the weather be cold, warm your hands and feet first. But beware of entering into conversation with the Patient before you feel his

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6/

pulse; as the influence of conversation is very great on the pulse. 2. Place all four of your fingers on the artery - it gives you a much better opportunity of judging, than one finger could do. 3. If you feel the patient's left arm, use your right hand; and vice versâ. 4. Feel the wrist of both arms: There is, in many cases, a difference in the two, from several causes, - as exposure to cold air of one arm - pressure on the artery, &c. I have corrected my judg=ment frequently in this manner. From feeling one arm, I have pre=scribed bleeding; but upon feeling the other have retracted my opinion. Nev=er remove your hand until you have counted 20 strokes. I have ob=served an intermission in the pulse, after the 18th stroke. The Chinese physicians are said to feel 49 strokes; and hence, perhaps, their accuracy in the knowledge of the pulse. If the case be critical, shut your eyes, or=der silence in the room, and, to use an expression of Doctor Darwin, "concentrate

all sensorial power in your finger ends." The influence of sound, &c. de=
=tract from accuracy of feeling. If the radial artery be, from any cause, not easily felt, feel the temporal, which is the next best. And here, Gen=
=tlemen, let me caution you in the application of blisters. Never apply them so as to prevent your feeling the pulse. When they are applied to the wrists, it occasions pain to feel the pulse, which will affect it. In such cases the temporal artery must be felt instead of the radial. The tempo=
=ral artery should always be felt in diseases of the Brain.— Thus, Gen=
=tlemen, have I related all the know=
=ledge which I have acquired of the pulse during my reading and practice. This knowledge dictates when bleed=
=ing is necessary, and in what quan=
=tities. Always feel the pulse before you prescribe any of the following remedies — viz. Vomits, purges, bloodletting, hot, or cold bath, pediluvium — also be=
=fore the use of stimulating medicines; as Bark & wine — stimulant and now=

=rishing aliment and drinks, &c.- Be cautious about feeling the pulse af=
=ter the use of medicines;- as opium, &c. and also after the use of stimulating drinks,- as they change the pulse very much. A Spanish physician by the name of Solano, has made ma=
=ny observations on the pulse; from some of which he asserts, that 100 is the greatest number of strokes which the arteries can beat consistently with the recovery of the patient. In Hy=
=drocephalus, 200 strokes is quite common; but whether these ever recover, Dr. R. does not know. The ob=
=servations of Dr. Cullen are opposed to those of Dr. Solano. He says Dr. Solano's observations are useless. Dr. R. says the Spanish Physicians, with all their boasted accuracy, are not well initiated into the mysteries of the pulse. — Plato, we are told, had inscribed over the door of his School, where he instruct=
=ed his pupils, "Let no man enter here, who does not know Geometry"

Were I to dedicate a Temple to Medicine, says Dr. R. I would inscribe not only over the Entrance, but over the door of every apartment, "Let no man enter here, who "does not know the pulse."

Finis.

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